

Five Year Review Report

EPA Region 5 Records Ctr.



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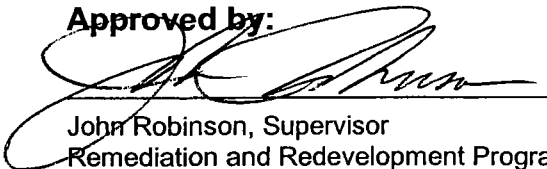
**First Five Year Review Report
For
Penta Wood Products Superfund Site
Town of Daniels
Burnett County, Wisconsin**

March 2005

PREPARED BY:

**Wisconsin Department of Natural Resources
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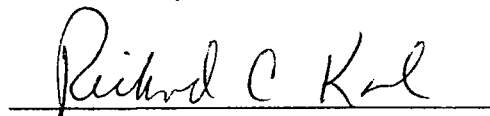
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List of Acronyms

ACZA	Ammonia, Copper II Oxide, Zink, and Arsenate
ARAR	Applicable or Relevant and Appropriate Requirements
CAMU	Corrective Action Management Unit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of Concern
COW	Coalescing Oil/Water Separator
CFR	Code of Federal Regulations
DAF	Dissolved Air Flotation
EPA	Environmental Protection Agency
ES	NR140 Wisconsin Administrative Code Enforcement Standard
GAC	Granular Activated Carbon
LNAPL	Light non-aqueous phase liquid
LTMP	Long Term Monitoring Plan
LTRA	Long Term Remedial Action
MNA	Monitored Natural Attenuation
NPL	National Priority List
PAH	Polycyclic Aromatic Hydrocarbons
PAL	NR140 Wisconsin Administrative Code Preventive Action Limit
PCP	Pentachlorophenol
QAPP	Quality Assurance Project Plan
RA	Remedial Action
RAO	Remedial Action Objectives
RI/FS	Remedial Investigation/Feasibility Study
RPM	Regional Project Manager
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
TCLP	Toxicity Characteristic Leaching Procedure
VOC	Volatile Organic Compound
WDNR	Wisconsin Department of Natural Resources
WDHFS	Wisconsin Department of Health and Family Services

Executive Summary

The selected remedy for the Penta Wood Products Superfund Site in the Town of Daniels Burnett County, Wisconsin includes:

- Building demolition.
- Segregation, select solidification, and placement of all arsenic contaminated soils in an onsite Corrective Action Management Unit (CAMU).
- Consolidation of Pentachlorophenol (PCP)/fuel oil soils and wood chips in the CAMU under a soil cover.
- Bioventing PCP/fuel oil contaminated material.
- Biopad removal and disposal onsite in the CAMU.
- Erosion control measures
- Revegetation
- Light non-aqueous phase liquid (LNAPL) removal.
- Containment, collection, treatment and discharge of grossly contaminated groundwater (exceeding 1,000ug/L PCP).
- Monitored Natural Attenuation (MNA) of groundwater contamination.
- Institutional controls
- Environmental monitoring/maintenance

The components of the remedy have been constructed. The site achieved construction completion in September 2000 with the construction of the original plant. An addition to the plant was completed and the plant began operation again in May 2004. After three months of operation the plant was declared operational and functional beginning the ten-year LTRA (Long Term Remedial Action). The trigger for this five-year review was the start of construction in December 1999.

The assessment of this five-year review found that the remedy was constructed according to the requirements of the Record of Decision (ROD). The remedy is functioning as designed. The immediate threats have been addressed. The remedy is expected to be protective when groundwater cleanup goals are achieved through LNAPL removal, groundwater extraction, bioventing and MNA. Cleanup goals are expected to be attained within 30 years. In addition, erosion controls must be maintained, and institutional controls implemented to assure long term protectiveness.

An annual review/report that summarizes all monitoring at the site and evaluates the effectiveness of the treatment system in meeting cleanup goals should be instituted. In addition the annual review/report should include a summary of site activities including waste generation and disposal, erosion control, and site maintenance.

Five Year Review Summary Form

SITE IDENTIFICATION		
Site name (from WasteLANg): Penta Wood Products Superfund Site		
EPA ID (from WasteLAN): WID006176945		
Region: 5	State: WI	County: Burnett
SITE STATUS		
NPL status: <input type="checkbox"/> Final Deleted Other (specify)		
Remediation status (choose all that apply): Under Construction <input type="checkbox"/> Operating Complete		
Multiple OUs?* YES <input type="checkbox"/> NO		Construction completion date: 9-30-2000
Has site been put into reuse? YES <input type="checkbox"/> NO		
REVIEW STATUS		
Lead agency: <input type="checkbox"/> EPA State Tribe Other Federal Agency		
Author name: William Schultz		
Author title: Engineer		Author affiliation: WDNR, Northern Region
Review period:** 12 / 23 / 1999 to 12 / 23 / 2004		
Date(s) of site inspection: 11 / 15 / 2004		
Type of review: <input type="checkbox"/> Post-SARA Pre-SARA NPL-Removal only Non-NPL Remedial Action Site NPL State/Tribe-lead Regional Discretion)		
Review number: <input type="checkbox"/> 1 (first) 2 (second) 3 (third) Other (specify)		
Triggering action: Actual RA On-site Construction at OU # Actual RA Start Construction Completion Previous Five-Year Review Report Other (specify)		
Triggering action date (from WasteLAN): 03/06/2000		
Due date (five years after triggering action date): 3/06/2005		

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd.

Issues:

None

Recommendations and Follow-up Actions:

Continue LNAPL removal. Continue pumping and treating grossly contaminated groundwater. Once LNAPL has been collected to the extent practicable, commence bioventing to enhance natural biodegradation. Promote revegetation and maintain erosion control measures on site. Continue ground water monitoring.

An annual review/report that summarizes all monitoring at the site and evaluates the effectiveness of the treatment system in meeting cleanup goals should be instituted. In addition the annual review/report should include a summary of site activities including waste generation and disposal, erosion control, and site maintenance.

Draft and record the appropriate property deed restrictions.

Protectiveness Statement(s):

The remedy is expected to be protective of human health and the environment when groundwater standards are achieved, the cover on the CAMU is maintained, and the appropriate property deed restrictions are implemented. In the interim, exposure pathways that could result in unacceptable risks are being controlled.

Long-Term Protectiveness:

Long-term protectiveness of the remedial action will be verified by obtaining additional groundwater samples to fully evaluate the effectiveness of LNAPL removal, groundwater pumping and bioventing. Significant amounts of LNAPL are being collected. Additional sampling and analysis will be conducted on a regular basis. Exposure pathways that could result in unacceptable risks are being controlled. The remedy is expected to be protective of human health and the environment when groundwater standards are achieved, the cover on the CAMU is maintained, and the appropriate property deed restrictions are implemented. Current groundwater monitoring data indicate that the remedy is functioning as required to achieve the Applicable or Relevant and Appropriate Requirements (ARARs) at the site.

Other Comments:

None

Five-Year Review Summary Form, continued

Penta Wood Products Site Burnett County, Wisconsin First Five-Year Review

I. Introduction

The purpose of the five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, five-year review reports identify issues found during the review and identify recommendations to address them.

The Wisconsin Department of Natural Resources (WDNR) is preparing this five-year review pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

The U.S. EPA interpreted this requirement further in the National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii) states:

If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

The U.S. EPA and the WDNR conducted the five-year review of the remedy implemented at the Penta Wood Products Site. This review was conducted from November 2004 through December 2004. This report documents the results of the review.

This is the first five-year review for the Penta Wood Products site. The trigger date for this review is the start of on-site construction on March 6, 2000. The five-year review is required due to the fact that hazardous substances, pollutants, or contaminants remain on site above levels that allow for unlimited use and unrestricted exposure.

II. Chronology of Site Events

Event	Date
Penta Wood Products operated as a wood treating facility	1953 – 1992
Wisconsin Department of Natural notes several large spills, stained soils, fires, and poor operating practices	1970s – 1991
Wisconsin Department of Natural Resources requests PWP to do an Environmental Site Investigation	1987
Wisconsin Department of Justice files a preliminary injunction against PWP	1991
PWP voluntarily closed	May 1992
Site placed in the Superfund Accelerated Cleanup Model (SACM) pilot program	1993
Site placed on NPL	June 17, 1996
USEPA conducts a removal action	April 1994 – May 1998
Ecological Risk Assessment Completed	June 30, 1998
USEPA conducts a RI/FS	March 1, 1994 – September 29, 1998
ROD signed	September 29, 1998
Remedial action start	December 23, 1999
On-site Construction Start date	March 6, 2000
LTRA start	August 2004
Five Year Review	December 2004

III Background

Physical Characteristics

The PWP site is an inactive wood treating facility located along Daniels 70 (former State Route 70) in Burnett County, Wisconsin. It is approximately 78 miles northeast of Minneapolis, Minnesota, and 60 miles south of Duluth, Minnesota. The Village of Siren, Wisconsin, is approximately 2 miles east of the site.

Currently the PWP property consists of approximately 82 acres that were actively used for cutting and treating raw wood timber products. The PWP site is situated on a plateau with a 110-foot drop in elevation from the southern boundary to the northern boundary. The site stratigraphy consists of three layers: an upper sand, a glacial till that is not continuous throughout the site, and a lower sand. The depth to groundwater is over 100 feet on the plateau. The regional groundwater flow direction is to the north. Since the closing of the production well, groundwater flow at the site has been radial, with a strong downward vertical gradient.

Land and Resource Use

The property is located in a rural agricultural and residential setting and is bordered to the east, west, and north by forested areas; some of these areas are classified by the Wisconsin Department of Natural Resources (WDNR) as wetlands. A wetland is located within 130 feet of the northern property boundary. A number of surface water bodies are present north and east of the site. Doctor Lake and an unnamed lake are located 2,000 feet east and northeast of the site, respectively. The Amsterdam Slough Public Hunting area covers 7,233 acres and is located 1 mile north of the site. Attachment 1 is an area site location map.

Four private residences are within 1000 feet of the site and have potable wells. Thirty-eight private wells were located within a 1-mile radius of the landfill in the May 1998 Feasibility Study (FS).

History of Contamination

PWP operated from 1953 to 1992. Raw timber was cut into posts and telephone poles and treated with either a 5 to 7 percent PCP solution in a No. 2 fuel oil carrier, or with a water born salt treatment called Chemonite consisting of ammonia, copper II oxide, zinc and arsenate (ACZA). PWP also conducted toll blending of pentachlorophenol and fuel oil on a contract basis for industrial users just prior to closing in 1992. During its 39 years of operation, PWP discharged wastewater from an oil/water separator down a gully into a lagoon on the northeast corner of the property. Process wastes were also discharged onto a wood chip pile in the northwestern portion of the property. Ash from a boiler was used to berm a cooling pond. Beginning in the 1970s, WDNR investigators noted several large spills, stained soils, fires and poor operating practices. Attachment 2 is a map of the Penta Wood Products Site when it was operating as a wood treating facility.

Initial Response

PWP began an environmental investigation in 1987. In 1988, the on-site production well was closed for potable use when it was found to contain 2,700 parts per billion (ppb) of PCP. The State of Wisconsin Department of Justice filed a preliminary injunction against PWP in 1991, citing WPDES violations and violations of other State statutes regarding storage of raw materials, and waste handling practices. The facility voluntarily closed in May 1992 with the promulgation of the Resource Conservation and Recovery Act (RCRA) drip track regulations.

The site was put into the Superfund Accelerated Cleanup Model (SACM) pilot program in 1993. The site was listed on the National Priorities List (NPL) on June 17, 1996. A removal action was conducted from 1994 to 1996. The ACZA treatment building and half of the oil/water separator building were demolished and remaining chemicals and sludges were disposed off-site. Grossly PCP-and metals-contaminated soils were excavated and disposed off-site, and metals-contaminated soils were excavated and mixed with cement on-site to form a 3-acre concrete biopad.

A Remedial Investigation/Feasibility Study (RI/FS) was conducted by USEPA in 1997 – 1998, culminating with the issuance of a Record of Decision (ROD) in September 1998.

Basis for Taking Action

As a result of spills and past waste handling practices at the site, subsurface soils to a depth of over 100 feet are contaminated with a PCP/oil mixture beneath the gully where wastewater was discharged from an oil/water separator to a lagoon. Areas near the dip tanks, oil/water separator, drying racks, boiler and ACZA treatment building exhibited gross contamination for arsenic and or PCP. Due to the severe erosion of surface soils and overland transport of contaminate soils and wood debris, surface water and sediment contamination in an offsite wetland to the northeast has resulted.

Over the years PWP had filled erosion gullies with wood debris and ash from the boiler where PCP sludges were burned. This wood debris layer is semi-saturated with the PCP/oil mixture. The PCP/oil mixture, which has traveled to the groundwater and spread horizontally as a light non-aqueous phase liquid (LNAPL) layer is floating on the water table over an estimated 4-acre area. A dissolved phase PCP plume exists in the groundwater. Groundwater contamination appears to be stable, and there is no evidence of contaminated groundwater discharging to the wetland or migrating below the wetland to surface water bodies.

Hazardous Substances that have been released and/or detected at the site in each media include:

<u>Contaminant</u>	<u>Media</u>
Arsenic	Groundwater, Sediment, Soil, Surface Water
Benzene	Groundwater, Soil
Chloride	Groundwater, Surface Water
Copper	Groundwater, Sediment, Soil, Surface Water
Ethylbenzene	Groundwater, Soil
Fluorene	Soil
Iron	Groundwater, Surface Water
Isophorone	Soil
Manganese	Groundwater, Surface Water
Methylnaphthalene	Soil
Naphthalene	Groundwater, Soil
Pentachlorophenol	Groundwater, Sediment, Soil, Surface Water
Phenanthrene	Soil
Toluene	Groundwater, Soil
Xylene	Groundwater, Soil
Zinc	Groundwater, Sediment, Soil, Surface Water

A baseline Risk Assessment was conducted to evaluate potential risks from contaminant exposure at the PWP site, and determine the need for and extent of remediation. A Focused Human Health Risk Assessment Report (Ecology & Environment 1997) and a Screening Level Ecological Risk Assessment Report (CH₂M Hill 1998a) were prepared. The risk assessments were conducted in accordance with EPA's guidance. Based on the results of the Focused Human Health Risk Assessment and Screening Level Ecological Risk Assessment, exposure to contaminated soil or groundwater are associated with significant human health and ecological risks, due to exceedance of EPA's risk management criteria for either the average or the reasonable maximum exposure scenario. Risks from exposure to soil were significant primarily due to the presence of arsenic and PCP.

IV. Remedial Action

Remediation Objectives

The Record of Decision (ROD) for the Penta Wood Products Site was signed on September 29, 1998. Remedial Action Objectives (RAOs) were developed as a result of data collected during the Remedial Investigation to aid in the development and screening of remedial alternatives to be considered for the ROD. Pentachlorophenol and arsenic are the primary risk drivers at the site. Pentachlorophenol is present in soils extending down to groundwater, is a major component of the LNAPL, and is present in the groundwater plume. Arsenic is present primarily in surface soils and wetland sediments.

Pentachlorophenol: The remedial objective is to reduce the PCP content in soils and groundwater to achieve compliance with ch. NR 720, Wisconsin Administrative Code, and in groundwater to achieve compliance with PALs, as established in ch. NR 140, Wisconsin Administrative Code, within a reasonable period of time. This reduction will be accomplished by removing the free phase LNAPL, and associated highly contaminated groundwater, remediating the PCP in the soils, and monitoring the intrinsic remediation of PCP in the groundwater. Institutional controls will be used to prevent groundwater use or direct contact exposure prior to achieving compliance.

Arsenic: Highly contaminated arsenic soils will be immobilized and consolidated with other arsenic contaminated soils (above background), and secured, to achieve compliance with NR 720. Soil contaminated with arsenic and other metals will be managed to essentially eliminate the direct contact exposure route and to protect groundwater. Performance of the metals consolidation area will be monitored.

Erosion Controls: An Erosion Control Plan will be implemented and maintained to prevent physical transport of contamination off-site and to protect the cap and consolidated areas from damage. The erosion control measures will be periodically inspected, and maintained/repared as necessary.

The remedial actions will prevent the potential for human health and environmental risks associated with the exposure to PCP, fuel oil components, and metals in the soil, sediment, and groundwater.

Remedy Selection

The major components of the remedy selection included the following:

- Building demolition.
- Segregation, select solidification, and placement of all arsenic contaminated soils in an onsite Corrective Action Management Unit (CAMU).
- Consolidation of Pentachlorophenol (PCP)/fuel oil soils and wood chips in the CAMU under a soil cover.
- Bioventing PCP/fuel oil contaminated material.
- Biopad removal and disposal onsite in the CAMU.
- Erosion control measures
- Revegetation
- Light non-aqueous phase liquid (LNAPL) removal.
- Containment, collection, treatment and discharge of grossly contaminated groundwater (exceeding 1,000ug/L PCP).
- Monitored Natural Attenuation (MNA) of groundwater contamination.
- Institutional controls
- Environmental monitoring/maintenance

Remedy Implementation

The site cleanup was a fund-financed remedial action to accomplish the objectives of the ROD. The remedial action (RA) includes a construction phase and a Long-Term Remedial Action (LTRA) phase.

Remedial construction activities in support of the RA began in December 1999 with actual construction starting on March 6, 2000. These activities included the following:

- Demolition of 17 buildings and foundations, and the offsite disposal of demolition material, debris piles, and laboratory chemicals.
- Excavation and consolidation of contaminated soils into a 7-acre Corrective Action Management Unit (CAMU), as shown in Attachment 3. PCP-contaminated soils were deposited on the CAMU's southern portion and arsenic-contaminated soils were placed on the northern portion. A wall of concrete rubble and stabilized arsenic-contaminated soil divides the two portions.
- Constructing an infiltration basin for discharging treated groundwater.
- Placing a soil cover over the CAMU with 6 inches of sand followed by 6 inches of topsoil, and then seeding and mulching the cover. Installing a gated 6-foot high fence encircling the perimeter of the CAMU restricted access.
- Erosion control structures including gabion basket downchutes, velocity control check dams and rip-rapped drainage ditches were constructed to protect the integrity of the CAMU.
- Seeding and mulching all barren areas and establishing a vegetative cover over all exposed areas of the site, including mulching and planting prairie grasses, native trees and shrubs.
- Drilling operations included abandonment of existing wells and the installation of the multi-purpose biovent and groundwater extraction wells, soil gas wells, a monitoring well, and the groundwater and LNAPL recovery pumps.
- Constructing a treatment building housing the biovent blower system, LNAPL recovery tanks and a groundwater treatment system. The treatment system consisting of an oil bag filter, activated clay treatment, granular activated carbon treatment, controls, and discharge piping.

The original remedial construction was completed in September 2000 but the groundwater treatment system was unable to achieve the required discharge limits for the treated groundwater. The groundwater treatment system could not be operated without almost immediately clogging the oil bag filter, activated clay treatment and granular activated carbon units with emulsified oil. An additional remedial action was

required to construct a wastewater treatment plant addition to treat contaminated groundwater and LNAPL to meet discharge limits set in the approved ROD. U.S. EPA and the WDNR signed a revised Superfund State Contract (SSC) in February and March 2003 respectively. The total cost of the remedial action (including long-term remedial action) increased from \$7.7 million (original SSC in late 1999) to \$12.7 million. The additional remedial action included the following:

- Construct a building to house the treatment plant addition.
- Install treatment equipment including a Dissolved Air Floatation (DAF) unit, a sludge dewatering system and sludge handling equipment.
- Install a well to obtain potable water.
- Continue to implement the long-term remedial action (LTRA) for a ten-year period, which starts three months after U.S. EPA certifies that the treatment plant is operational and functional.

A final inspection of the additional remedial action was conducted on May 5, 2004, and the U.S. EPA certified the treatment plant operational and functional on August 12, 2004. This began the 10-year LTRA period.

The cost for operation and maintenance during the LTRA of the site will be born 90% by the U.S. EPA and 10% by the WDNR. At the end of this 10-year period the State has agreed to take over the operation and maintenance of the site if treatment goals have not been met.

V. Progress Since the Last Five-Year Review

This is the first five-year review for the site.

VI. Five Year Review Process

Administrative Components

The five-year review was conducted by William Schultz, representative of the state support agency and Anthony Rutter, Regional Project Manager (RPM) for EPA Region 5.

From October 14, 2004 to November 16, 2004 the reviewer established a review schedule whose components included:

- Community Involvement/Notification
- Document Review
- Data Review

- Site Inspection
- Five-Year Review Report Development and Review

The schedule extended through January 15, 2005.

Community Involvement

The EPA published a public notice announcing the five-year review in the Burnett County Sentinel and in the Inter-county Leader on October 27, 2004. The release contained a brief summary of the site activities, the Five-Year review process and a solicitation for public comment. No comments concerning the Penta Wood Products site and the Five-year review process were received during this period. No interviews were conducted with the public.

Document Review

This five-year review consisted of a review of relevant documents including source control remedial action documentation and groundwater monitoring records. Applicable groundwater standards as listed in the 1998 ROD were reviewed. The Quality Assurance Project Plan (QAPP), Final Operations and Maintenance Manual and the Groundwater Sampling Results Technical Memorandum for 2003 were also reviewed.

Data Reviewed

Groundwater Monitoring Data

Treated Groundwater Discharge Data

Site Inspection

The WDNR project manager conducted an inspection of the site on November 15, 2004. The purpose of the inspections was to assess the protectiveness of the remedy including the operation of the groundwater/LNAPL treatment facility and the effectiveness of the erosion control structures. In addition, the condition of the perimeter fencing, monitoring wells and re-vegetated areas were observed. A copy of the Site Inspection Checklist is included in "Attachment 5".

No significant issues were identified during the site inspections. The following items were observed:

- The groundwater/LNAPL treatment plant was operating satisfactorily and has been operating continuously except for regular maintenance since May 1, 2004.
- Erosion control structures have continued to be expanded and refined since their installation in 2000. Rock dams and rip-rapped lined ditches have been constructed

as needed. Additional rock-lined diversion swales are to be installed in the spring of 2005 along the east side of the CAMU.

- The fencing along the highway and around the perimeter of the CAMU appears to be restricting access to the site.
- The monitoring wells were locked and appear to be in good condition.

The appropriate deed restrictions to limit property use to industrial have not been placed on the property deed.

Requests to Solicit Comments

On December 1, 2004, letters were sent to explain the required five-year review and solicit comments or concerns from various parties in the area of the site. These letters were sent to the following public stakeholders:

- Roberta Sichta, Emergency Government Director, Burnett County, Wisconsin
- Vernon Peterson, Town of Daniels Chairman, Burnett County, Wisconsin
- Tom Howe, Chief, Siren Fire Department, Siren, Wisconsin

A copy of the letter is in Attachment 6.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The review of documents, ARARs, risk assumptions, and the results of the site inspection indicate that the remedy is functioning as intended by the ROD, and includes the following:

- The excavation and stabilization of contaminated soil and subsequent disposal in an on-site CAMU has achieved the remedial objective to prevent direct contact with contaminants in the soil and minimize the migration of contaminants to groundwater and surface water.
- The construction and maintenance of the erosion control measures continues to protect the soil cover of the CAMU and to minimize erosion other soils.
- The construction of the LNAPL recovery system and the groundwater treatment system has been completed. Treated groundwater is meeting the required on-site discharge limits. The treatment system will continue to be operated until it is appropriate for groundwater to be restored to NR140 Wisconsin Administrative Code Preventive Action Limits (PALs) by natural attenuation.
- The monitoring well network provides sufficient data to assess groundwater quality at the site and to determine the effectiveness of the remedial action. The Long Term Monitoring Plan is providing adequate sampling and analysis for compliance monitoring as required by the selected remedy. The groundwater contamination has been confined to the site and there is little movement of the contaminant plume. Monitoring of adjacent residential wells has demonstrated that the plume has been contained on site. There was one sampling event where a low level of PCP below the MCL was found in a residential well but no PCP was found during subsequent sampling events. The groundwater pump and treatment system is providing effective treatment and containment of the plume.
- The perimeter fencing and fencing around the CAMU appears adequate to limit access to the site.

The ROD requires "Institutional Controls" in the form of groundwater use restriction and land use restrictions be implemented to prohibit site groundwater use and restrict activities in the CAMU. Because the groundwater treatment system needs oversight and the site erosion control needs are continually monitored, unacceptable groundwater and land use are currently prevented. The need for this restriction to be placed on the deed is not necessary until the active groundwater treatment system has been shut down. U.S. EPA has a large lien on the property for the cleanup costs which means that the property will not be sold.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid?

There have been no changes in the physical condition of the site that would affect the protectiveness of the remedy.

Changes in Standards and To Be Considered (TBC)

The active remedial action construction activities are complete at the site. NPDES exceedances for contaminants originating on-site are being addressed by the continued operation of the groundwater treatment system and maintenance of the CAMU. There have been no changes in these ARARs and no new TBCs affecting the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

The exposure assumptions used to develop the Human Health Risk Assessment included both current exposures (older child trespasser, adult trespasser) and potential future exposures (young and older future child resident, future adult resident and future adult worker). There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment. These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk based cleanup levels. No change to these assumptions or the cleanup levels developed from them is warranted. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. The remedy is progressing as expected.

Question C: Has any other information come to light that that calls into question the protectiveness of the remedy?

There is no information generated during the five-year review process or other information that calls into question the protectiveness of the remedy.

Technical Assessment Summary

According to the data reviewed, the site inspection, and the interviews, the remedy is functioning as intended by the ROD. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

VI. Issues

A deed restriction in the form of groundwater use restriction and land use restrictions is necessary to prohibit site groundwater use and restrict activities in the CAMU. These

deed restrictions need not be implemented until the active groundwater treatment system is shut down.

The Final Operation & Maintenance Manual should require an annual review/report to be developed that annually summarizes all monitoring at the site and evaluates the effectiveness of the treatment system in meeting cleanup goals. In addition the annual review/report should include a summary of site activities including waste generation and disposal, site inspections, erosion control, and site maintenance.

No other issues were identified that would affect either the current or future protectiveness of the remedy.

IX. Recommendations and the Follow-Up Actions

The remedy should continue to be implemented in accordance with the provisions of the ROD. A restriction needs to be placed on the property deed to restrict groundwater and land use in the future. The property under and near the CAMU will be permanently restricted to prohibit any disturbance since high levels of arsenic will remain in the CAMU forever. Groundwater use will be restricted on the rest of the site until PAL's have been met for Pentachlorophenol. The remediation of the groundwater will continue until WDNR PAL's are met. The groundwater treatment system will operate as long as it is cost effective to do so and then natural attenuation will continue the process until the PAL's are met. The current operating costs for the treatment plant are estimated to be about \$1,100,000 a year.

An annual report beginning with the start of the LTRA (August 2004) should be developed to summarize all activities that have taken place the previous year. This report should include a review of historical groundwater and MNA data trends, tabulated groundwater monitoring data, determinations of LNAPL and dissolved phase plume stability, and proposed modifications to The Long Term Monitoring Plan (LTMP). In addition the annual report should include waste generation and disposal summaries, site inspection observations, and any necessary repairs to the sediment control structures. Any changes to the Operation and Maintenance Plan should be discussed in the annual report.

Table 2 Recommendations and Follow-Up Actions

Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Follow-up action Affects Protectiveness (Y/N)	
				Current	Future
Deed Restriction	WDNR	EPA	unknown	N	Y
Annual Report	EPA	EPA	Annually	N	N

X. Protectiveness Statement

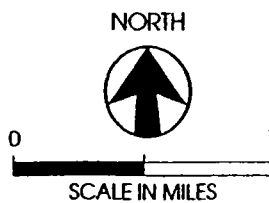
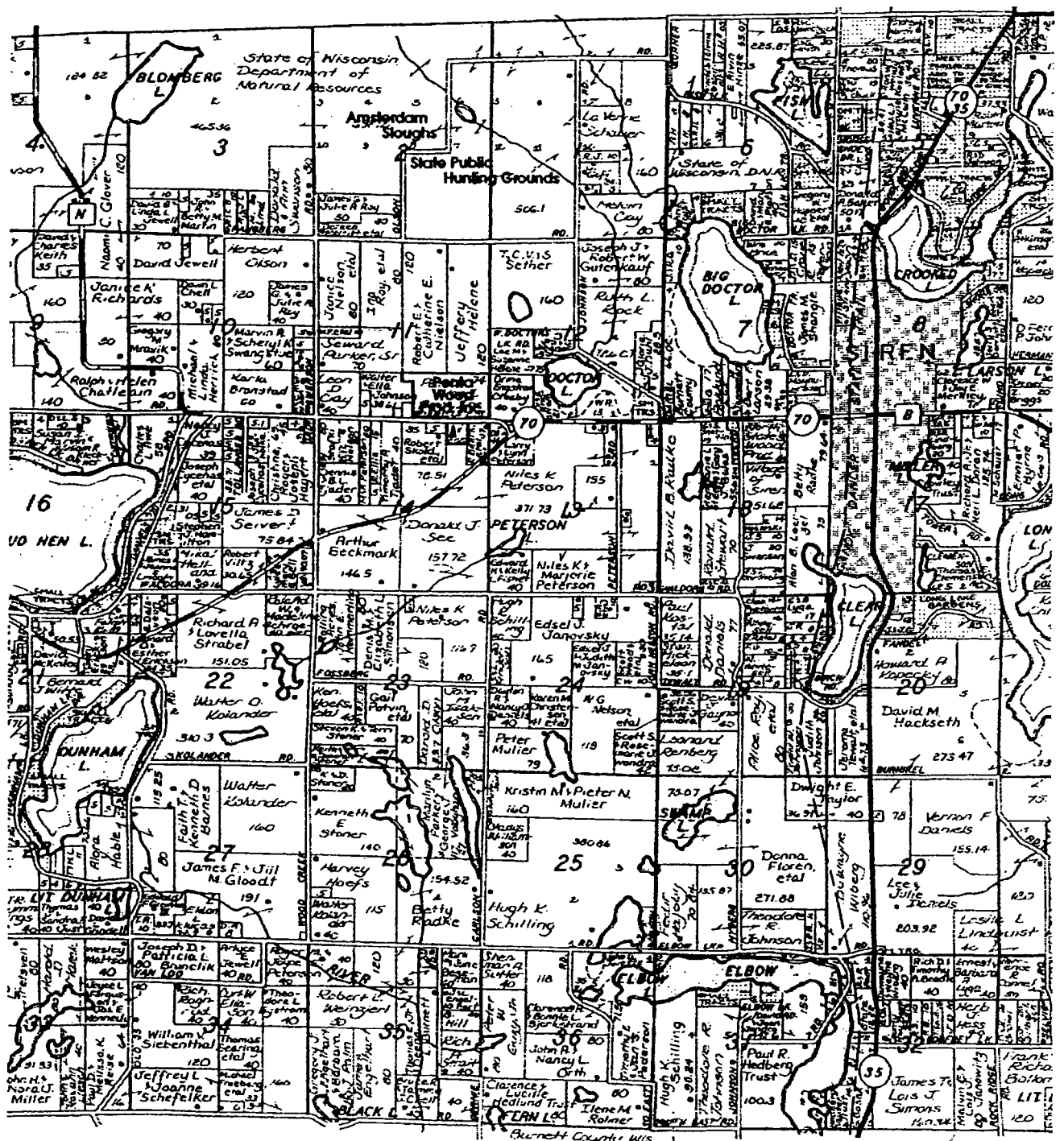
The remedy is expected to be protective of human health and the environment when groundwater standards are achieved. In the interim, exposure pathways that could result in unacceptable risks are being controlled. To assure exposure risks in the interim are controlled an annual review/report of the operation and maintenance of the RA will be implemented. Long term protectiveness will be assured when groundwater standards are achieved and institutional controls are implemented.

XI. Next Review

The next five-year review for the Penta Wood Products site is required by December 2009.

Attachment 1

Site Location Map

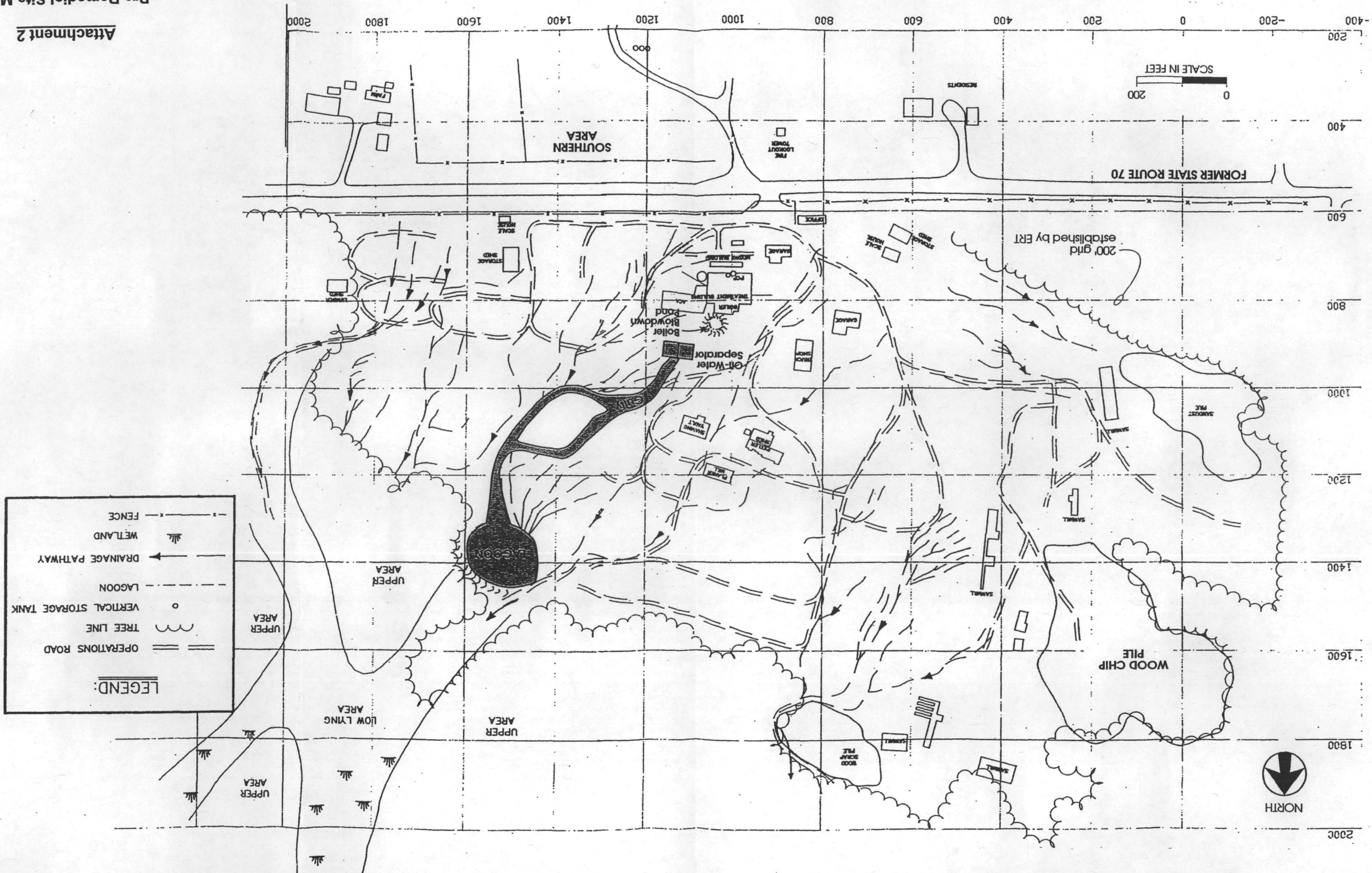


Attachment 1

Site Location Map

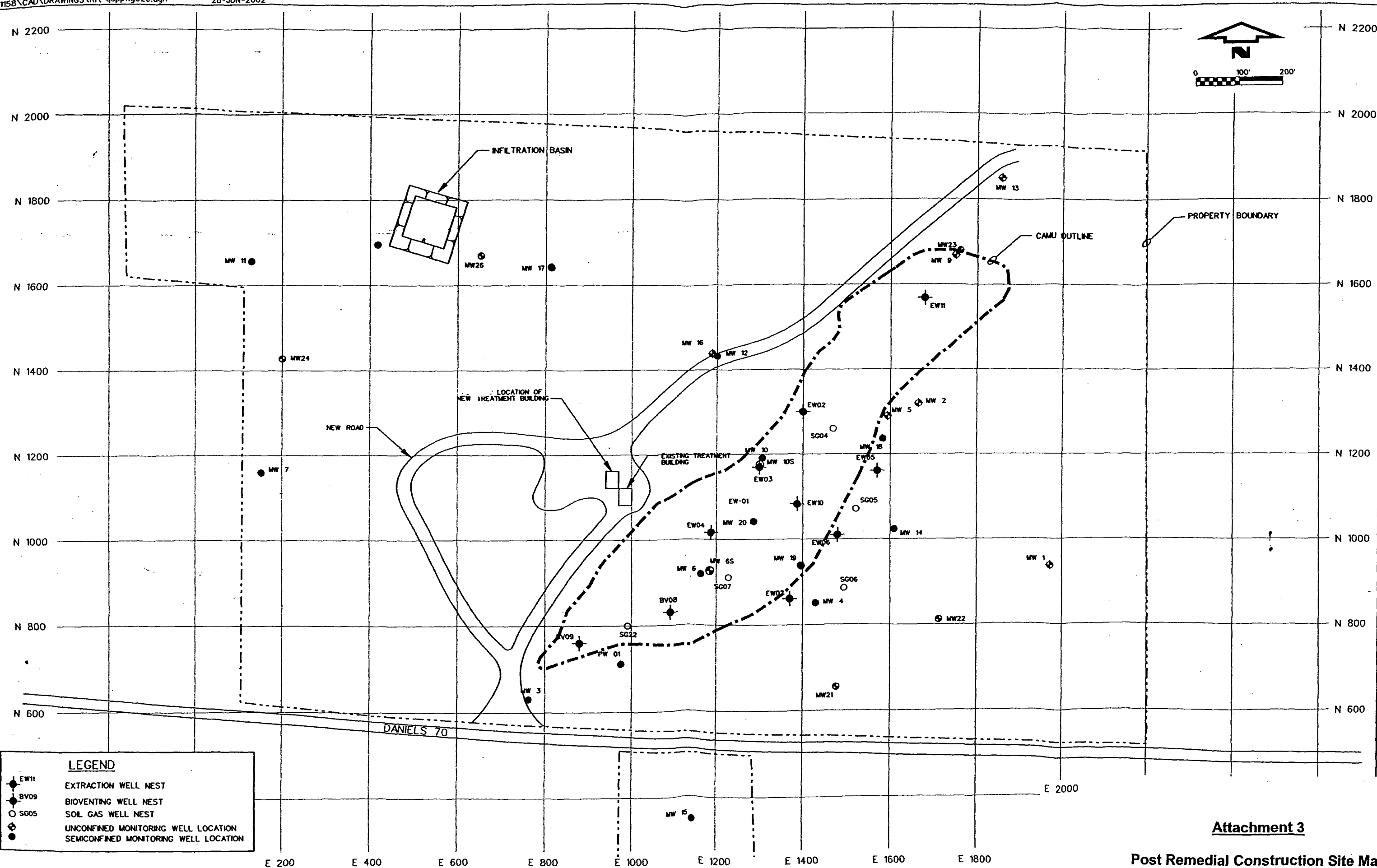
Attachment 2

Pre Remedial Site Map



Attachment 3

Post Remedial Construction Site Map



Attachment 4

Groundwater & Effluent Monitoring Results

The results of the system and WPDES PCP sampling are summarized in the table below.

SYSTEM, EFFLUENT, AND WPDES PCP SAMPLING RESULTS

Sample Event	Date	Volume (kgal)	DAF PCP (µg/L)	GAC1 PCP (µg/L)	Effluent PCP (µg/L)
1	02/27/2004	30	2,600	0.18	0.025J
2	02/28/2004	97	2,800	0.076J	0.026J
3	03/01/2004	202	3,000	4.5	0.10U
4	03/02/2004	254	2,600	0.11	0.12U
5	03/09/2004	288	2,700	0.084J	0.11U
6	03/10/2004	332	3,000	0.21	0.11U
7	03/11/2004	357	3,700	0.48	0.11U
8	03/12/2004	392	3,100	0.41	0.11U
9	03/15/2004	467	3,500	0.18	0.1U
10	04/13/2004	631	X	X	X
11	04/27/2004	1,049	14,300B	0.832B	0.0271JB
12	04/28/2004	1,121	XX	0.125B	0.0183JB
13	05/06/2004	1,280	15,500B	0.0877JB	0.125B
14	05/13/2004	1,687	12,400B	0.161B	0.0260B
15	05/24/2004	2,327	12,300B	0.142B	0.0282B
16	06/10/2004	3,274	12,000B	0.293B	0.0943U
17	06/16/2004	3,920	22,600	69.9	0.137
18	06/17/2004	3,984	14,500	458	0.050U
19	06/23/2004	4,468	*NA	*NA	*NA
20	06/24/2004	4,587	14,400	2,000E	0.127
21	06/28/2004	4,700	*NA	*NA	*NA
22	06/30/2004	4,965	*NA	*NA	*NA
23	07/01/2004	5,806	11,900B	209B	0.081JB
24	07/14/2004	5,200	15,300	51.3	0.126

SYSTEM, EFFLUENT, AND WPDES PCP SAMPLING RESULTS

Sample Event	Date	Volume (kgal)	DAF PCP (µg/L)	GAC1 PCP (µg/L)	Effluent PCP (µg/L)
25	07/20/2004	5,856	—	—	0.0952U
26	07/29/2004	6,865	10,400	3,180	0.0971U
27	08/04/2004	7,482	10,400	3,130	0.103
28	08/16/2004	8,172	8,100	4,710	0.348
29	08/27/2004	8,400	10,100	—	0.151
30	09/16/2004	9,388	7,530B	0.199B	0.0724JB
31	09/23/2004	10,124	—	27.8B	0.393B
32	09/28/2004	10,200	10,900B	—	0.102B
33	10/05/2004	10,986	—	366	0.0990
34	10/14/2004	11,782	—	843	0.265B
35	10/19/2004	12,272	*	*	*
36	10/26/2004	13,040	*	*	*

Notes:

* = Sample results are not yet available from the laboratory or the analysis is on hold per instruction from CH2M HILL. Some samples were placed on hold pending the results of the quick turn-around time samples. If no breakthrough was detected in the GAC1 effluent, the earlier samples were not analyzed.

*NA = Sample analysis was on hold and cancelled based on the results of the quick turn-around time samples.

— = Samples were not obtained.

X = Samples were collected, but the laboratory failed to perform the analysis using the required reporting limit and the results were rejected. No payment was made for these samples.

XX = No sample was available—the sample bottle was broken.

Qualifiers:

B = Analyte found in the method blank

J = Estimated value

U = Analyte was not detected at or above the stated limit

The results of the WPDES sampling are summarized in the table on the following page.

WPDES SAMPLING SUMMARY

Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (TSS; mg/L)	Chloride (mg/L)	Diesel Range Organics (DRO; mg/L)	Total Organic Carbon (TOC; mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 mg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (ug/L; 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins & Furans (all congeners)
10-Jun-04	12,000B	7.0	2.13U	29	0.10U	0.775B	5.0U	5.0U	10.0U	1.78U	.0943U	5.0U	5.0U	0.5U	5.0U	5.0U	5.0U	0.967B	4.92	111	412	2,230	-	-
16-Jun-04		7.0									0.137													
17-Jun-04		7.0									0.050U													
23-Jun-04		7.0									*NA													
24-Jun-04		7.0									0.127													
01-Jul-04		7.0									0.081JB													
14-Jul-04		7.0									0.126													
20-Jul-04	-	7.0	2.13U	30B	0.10U	1.12	1.0U	1.0U	2.0U	1.78U	0.0952U	4.85U	1.0U	0.5U	1.0U	1.0U	1.0U	0.843B	3.49	79.7	5.48B	2,460	--	--
29-Jul-04		7.0									0.0971U													
04-Aug-04		7.0									0.103													
16-Aug-04		7.0									0.348													
27-Aug-04	-	7.0	4.0U	--	0.10U	0.789B	1.0U	1.0U	2.0U	1.58U	0.151	9.62U	1.0U	0.5U	1.0U	1.0U	1.0U	2.19	3.75	98.1	-	-	-	-
16-Sep-04		7.0									0.0724JB													
23-Sep-04		7.0									0.393B													
28-Sep-04	10,900B	7.0	4.0U	28	0.10U	0.811B	1.0U	1.0U	2.0U	2.17U	0.102B	9.43U	1.0U	0.5U	1.0U	1.0U	1.0U	1.0U	5.51	95.5	36.8B	2,470	-	-
5-Oct-04		7.0									0.0990													

WPDES SAMPLING SUMMARY

Date	Pentachlorophenol (µg/L) Influent	pH Field	Total Suspended Solids (TSS; mg/L)	Chloride (mg/L)	Diesel Range Organics (DRO; mg/L)	Total Organic Carbon (TOC; mg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Total Trimethylbenzene (µg/L)	Dioxin (2,3,7,8 TCDD; pg/L; 3.0 pg/L monthly average limit)	Pentachlorophenol (µg/L; 0.1 mg/L monthly average limit)	Phenol (µg/L)	Naphthalene (µg/L; 8.0 µg/L monthly average limit)	Benzene (µg/L; 0.5 µg/L monthly average limit)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylene (µg/L)	Arsenic, Total Recoverable (ug/L; 5.0 µg/L monthly average limit)	Copper, Total Recoverable (µg/L)	Zinc, Total Recoverable (µg/L)	Iron, Total Recoverable (µg/L)	Manganese, Total Recoverable (µg/L)	Acid Extractables	Dioxins & Furans (all congeners)
14-Oct-04		7.0									0.265B													
19-Oct-04		7.0																						
26-Oct-04		7.0																						

Notes:

*NA = Sample analysis was on hold and cancelled based on the results of the quick turn-around time samples.

-- = Not sampled.

Qualifiers:

B = Analyte found in the method blank

J = Estimated value

U = Analyte was not detected at or above the stated limit



CH2MHILL

CH2M HILL

135 South 84th Street

Suite 325

Milwaukee, WI 53214-1458

Tel 414.272.2426

Fax 414.272.2426

November 29, 2004

184202.CV.05

Mr. Tony Rutter
Remedial Project Manager
U.S. Environmental Protection Agency
Remedial Response Branch (SR-6J)
77 West Jackson Boulevard
Chicago, IL 60604-3507

Subject: Requested Historical Residential Well Data
Penta Wood Products Site, Town of Daniels, Wisconsin
Work Assignment No. 201-RALR-05WE, Contract No. 68-W6-0025

Dear Tony:

Enclosed please find one copy of the database printout of the residential well data for the Penta Wood Products Site requested by Bill Schultz/WDNR. The data summarized in the printout covers the period of time from 2000 to 2004 which corresponds to the completion of the Remedial Action.

Please feel free to call me with any other requests or questions you may have regarding the historical monitoring well data.

Sincerely,

CH2M HILL

A handwritten signature in cursive script that reads "Bill Andrae".

William Andrae
Site Manager

c: Stephen Nathan/PO/USEPA (w/o enclosure)
Bill Schultz/WDNR, Rhinelander
Ike Johnson/PM/CH2M HILL, Milwaukee (w/o enclosure)
Steve Paukner/Chemist/CH2M HILL, Milwaukee (w/o enclosure)
Cherie Wilson/AA/CH2M HILL, Milwaukee (w/o enclosure)

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-01	RW-01	RW-01	RW-01	RW-01	RW-01	RW-01
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/23/2001	09/11/2001	09/28/2001	09/28/2001	05/14/2002	08/06/2002	04/29/2003
Field Sample Identification:	01CB07-62	01CB28-27	01CB28-53	01CB28-59	02CB14-17	02CB18-55	03CB08-13
Laboratory Sample Identification:	210419612	913080-032	210916201	913316-001	02052485-14	02081721-5	217123-007
Units ug/L	0.1 U	0.071 J	0.1 UJ	0.05 U	0.23	0.04	0.1 J

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-01	RW-01	RW-02	RW-02	RW-02	RW-02	RW-02
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/23/2003	11/20/2003	04/24/2001	09/11/2001	09/28/2001	09/28/2001	05/14/2002
Field Sample Identification:	03CB14-51	03CB14-71	01CB07-80	01CB28-28	01CB28-54	01CB28-60	02CB14-18
Laboratory Sample Identification:	19255-024	222528-002	210420904	913080-033	210916202	913316-002	02052485-15

SVOA	Units							
Pentachlorophenol	ug/L	0.28	0.24	0.1 U	9.5	0.1 UJ	0.05 U	0.1

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-02	RW-02	RW-02	RW-02	RW-03	RW-03	RW-03
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/06/2002	08/06/2002	04/29/2003	09/24/2003	09/11/2001	09/28/2001	09/28/2001
Field Sample Identification:	02CB18-57	02CB18-99	03CB08-14	03CB14-52	01CB28-25	01CB28-56	01CB28-62
Laboratory Sample Identification:	02081721-2	02081721-3	217123-008	19255-012	913080-030	210916204	913316-004

SVOA	Units							
Pentachlorophenol	ug/L	0.04 U	0.04 U	0.11 U	0.11 U	0.1 J	0.1 UJ	0.05 U

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-03	RW-03	RW-03	RW-03	RW-04	RW-04	RW-04
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	05/14/2002	08/06/2002	04/29/2003	09/23/2003	04/23/2001	09/11/2001	09/28/2001
Field Sample Identification:	02CB14-19	02CB18-59	03CB08-15	03CB14-54	01CB07-61	01CB28-26	01CB28-57
Laboratory Sample Identification:	02052485-16	02081721-6	217123-009	19255-025	210419611	913080-031	210916205
SVOA							
Pentachlorophenol							
Units							
ug/L	0.094 J	0.04 U	0.11 U	0.11 U	0.1 U	0.073 J	0.1 UJ

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-04	RW-04	RW-04	RW-04	RW-04	RW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/28/2001	05/14/2002	08/06/2002	04/29/2003	09/23/2003	04/23/2001
Field Sample Identification:	01CB28-63	02CB14-20	02CB18-61	03CB08-16	03CB14-55	01CB07-63
Laboratory Sample Identification:	913316-005	02052485-17	02081721-1	217123-010	19255-026	210419613
SVOA						
Pentachlorophenol						
Units						
ug/L	0.05 U	0.13	0.04 U	0.11 U	0.11 U	0.1 U

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-01	RW-01	RW-01	RW-01	RW-01	RW-01	RW-02
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/23/2001	09/11/2001	05/14/2002	08/06/2002	04/29/2003	09/23/2003	04/24/2001
Field Sample Identification:	01CB07-62	01CB28-27	02CB14-17	02CB18-55	03CB08-13	03CB14-51	01CB07-80
Laboratory Sample Identification:	210419612	913080-032	02052485-14	02081721-5	217123-007	19255-024	210420904

Volatiles	Units						
Naphthalene	ug/L	5.3 U	0.26 U	5 U	5 U	7.1 UJ	5.4 U
Benzene	ug/L	0.5 U	0.44 U	1 UJ	1 U	0.25 UJ	0.1 U
Ethylbenzene	ug/L	5 U	0.5 U	5 U	5 U	2.5 UJ	1 U
Toluene	ug/L	5 U	0.4 U	2 J	5 U	2.5 UJ	1 U
Xylenes (Total)	ug/L	5 U	1.2 U	2 J	5 U	2.5 UJ	1 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-03
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/11/2001	05/14/2002	08/06/2002	08/06/2002	04/29/2003	09/24/2003	09/11/2001
Field Sample Identification:	01CB28-28	02CB14-18	02CB18-57	02CB18-99	03CB08-14	03CB14-52	01CB28-25
Laboratory Sample Identification:	913080-033	02052485-15	02081721-2	02081721-3	217123-008	19255-012	913080-030

Volatiles	Units							
Naphthalene	ug/L	0.25 U	5 U	5 U	5 U	6.8 UJ	0.97 U	0.28 U
Benzene	ug/L	0.44 U	1 UJ	1 U	1 U	0.5 U	0.25 UJ	0.44 U
Ethylbenzene	ug/L	0.5 U	5 U	5 U	5 U	5 U	2.5 UJ	0.5 U
Toluene	ug/L	0.4 U	5 U	5 U	5 U	5 U	2.5 UJ	0.4 U
Xylenes (Total)	ug/L	1.2 U	5 U	5 U	5 U	5 U	2.5 UJ	1.2 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-03	RW-03	RW-03	RW-03	RW-04	RW-04	RW-04
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	05/14/2002	08/06/2002	04/29/2003	09/23/2003	04/23/2001	09/11/2001	05/14/2002
Field Sample Identification:	02CB14-19	02CB18-59	03CB08-15	03CB14-54	01CB07-61	01CB28-26	02CB14-20
Laboratory Sample Identification:	02052485-16	02081721-6	217123-009	19255-025	210419611	913080-031	02052485-17

Volatiles	Units							
Naphthalene	ug/L	5 U	5 U	6.8 UJ	0.96 U	5 U	0.25 U	5 U
Benzene	ug/L	1 UJ	1 U	0.5 U	0.25 UJ	0.5 U	0.44 U	1 UJ
Ethylbenzene	ug/L	5 U	5 U	5 U	2.5 UJ	5 U	0.5 U	5 U
Toluene	ug/L	5 U	5 U	5 U	2.5 UJ	5 U	0.4 U	5 U
Xylenes (Total)	ug/L	5 U	5 U	5 U	2.5 UJ	NA	1.2 U	5 U

Penta Wood LTRA Residential Well Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	RW-04	RW-04	RW-04	RW-05
Sample Interval:	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water
Sample Collection Date:	08/06/2002	04/29/2003	09/23/2003	04/23/2001
Field Sample Identification:	02CB18-61	03CB08-16	03CB14-55	01CB07-63
Laboratory Sample Identification:	02081721-1	217123-010	19255-026	210419613

Volatiles	Units				
Naphthalene	ug/L	5 U	7.4 UJ	0.99 U	5 U
Benzene	ug/L	1 U	0.5 U	0.25 UJ	0.5 U
Toluene	ug/L	5 U	5 U	2.5 UJ	5 U
Xylenes (Total)	ug/L	5 U	5 U	2.5 UJ	5 U

Penta Wood LTRA Residential Well Results 2004

Field Site Identifier:	01	01	01	01	01	01
Field Sample Location:	RW-01	RW-01	RW-02	RW-03	RW-04	RW-05
Sample Interval:	-	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water
Sample Collection Date:	11/20/2003	05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:	03CB14-71	04CB05-12	04CB05-14	04CB05-15	04CB05-16	04CB05-17
Laboratory Sample Identification:	222528-	0405056	0405056	0405056	0405056	0405056
Semivolatiles	Units					
PENTACHLOROPHENOL	ug/l	0.24	0.140 UB	0.0252 UB	0.0952 U	0.100 U
					0.100 U	0.0935 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; No Qualifier - Analyte found; "R" - Rejected; "NR" - Not

Penta Wood LTRA Residential Well Results 2004

Field Site Identifier:	01	01	01	01	01
Field Sample Location:	RW-01	RW-02	RW-03	RW-04	RW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water
Sample Collection Date:	05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:	04CB05-12	04CB05-14	04CB05-15	04CB05-16	04CB05-17
Laboratory Sample Identification:	0405056	0405056	0405056	0405056	0405056

Volatiles	Units					
ETHYLBENZENE	ug/l	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
TOLUENE	ug/l	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
BENZENE	ug/l	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
NAPHTHALENE	ug/l	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
XYLENES, TOTAL	ug/l	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U



CH2MHILL

CH2M HILL

135 South 84th Street

Suite 325

Milwaukee, WI 53214-1458

Tel 414.272.2426

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November 15, 2004

184202.CV.05

Mr. Tony Rutter
Remedial Project Manager
U.S. Environmental Protection Agency
Remedial Response Branch (SR-6J)
77 West Jackson Boulevard
Chicago, IL 60604-3507

Subject: Requested Historical Monitoring Well Data
Penta Wood Products Site, Town of Daniels, Wisconsin
Work Assignment No. 201-RALR-05WE, Contract No. 68-W6-0025

Dear Tony:

Enclosed please find one copy of the database printout you requested of the monitoring well data for the Penta Wood Products Site. The data summarized in the printout covers the period of time from 2000 to 2004 which corresponds to the completion of the Remedial Action. Per your request, the printout does not include residential well results.

Please feel free to call me with any other requests or questions you may have regarding the historical monitoring well data.

Sincerely,

CH2M HILL

William Andrae
Site Manager

c: Stephen Nathan/PO/USEPA (w/o enclosure)
Bill Schultz/WDNR, Rhinelander
Ike Johnson/PM/CH2M HILL, Milwaukee (w/o enclosure)
Steve Paukner/Chemist/CH2M HILL, Milwaukee (w/o enclosure)
Cherie Wilson/AA/CH2M HILL, Milwaukee (w/o enclosure)

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	04/24/2001	09/11/2001	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:	00CB09-01	01CB07-64	01CB28-21	02CB14-05	02CB18-09	03CB08-03	03CB14-05
Laboratory Sample Identification:	200403802	210420901	913080-024	02052485-24	02081571-27	18483-010	19267-005
Semivolatiles	Units						
Naphthalene	ug/L	11 U	5.6 U	0.24 U	5 U	5 U	7.4 UJ
Pentachlorophenol	ug/L	0.5 U	0.1 U	0.5	0.13 J	0.067	0.1 UJ

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-02	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	06/18/2001	09/12/2001	08/06/2002	09/24/2003	04/04/2000	04/25/2001
Field Sample Identification:	00CB09-02	01CB08-66	01CB28-39	02CB18-13	03CB14-09	00CB09-03	01CB07-83
Laboratory Sample Identification:	200403810	210611201	913080-011	02081571-9	19267-009	200402501	210422706
Semivolatiles	Units						
NAPHTHALENE	ug/L	10 U	5 U	0.24 U	5 U	0.99 U	12 U
PENTACHLOROPHENOL	ug/L	0.5 U	0.1 UJ	0.51	0.12	0.28	0.6 U
							6.1 R
							0.11 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-03	MW-03	MW-03	MW-04	MW-05	MW-05	MW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/13/2001	08/07/2002	09/23/2003	04/04/2000	04/07/2000	04/26/2001	09/13/2001
Field Sample Identification:	01CB28-44	02CB18-15	03CB14-11	00CB09-04	00CB09-05	01CB08-05	01CB28-46
Laboratory Sample Identification:	913103-001	02081571-35	19255-008	200402511	200405120	210423416	913103-006
Semivolatiles	Units						
NAPHTHALENE	ug/L	0.26 U	5 U	1.1 U	10 U	76 U	38
PENTACHLOROPHENOL	ug/L	0.092 J	0.11	0.31	0.5 U	20600	20600
							6300

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-05	MW-05	MW-06S	MW-06S	MW-06S	MW-06S	MW-07
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/07/2002	09/25/2003	04/26/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000
Field Sample Identification:	02CB18-17	03CB14-13	01CB08-11	01CB28-34	02CB18-19	03CB14-15	00CB09-07
Laboratory Sample Identification:	02081836-7	19274-009	210423404	913080-001	02081836-10	19274-005	200402505
Semivolatiles	Units						
NAPHTHALENE	ug/L	3.2 J	2.5	5.4 U	0.24 U	5 U	10 U
PENTACHLOROPHENOL	ug/L	510	1100	2.5	1.1	88	0.5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-07	MW-07	MW-07	MW-07	MW-08	MW-08	MW-08
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/25/2001	09/11/2001	08/07/2002	09/24/2003	04/05/2000	04/25/2001	09/11/2001
Field Sample Identification:		01CB07-87	01CB28-22	02CB18-21	03CB14-17	00CB09-08	01CB07-93	01CB28-18
Laboratory Sample Identification:		210422708	913080-026	02081571-32	19267-007	200403807	210422715	913080-035
Semivolatiles	Units							
NAPHTHALENE	ug/L	5.2 R	0.24 U	5 U	0.96 U	10 U	5 U	0.24 U
PENTACHLOROPHENOL	ug/L	0.1 U	0.083 J	0.03 J	0.044 J	0.5 U	0.2	0.062 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/08/2002	09/25/2003	04/05/2000	04/23/2001	09/12/2001	08/06/2002	09/25/2003
Field Sample Identification:	02CB18-23	03CB14-19	00CB09-09	01CB07-46	01CB28-36	02CB18-25	03CB14-21
Laboratory Sample Identification:	02081571-38	19274-003	200403803	210419501	913080-004	02081571-11	19274-011

Semivolatiles	Units						
NAPHTHALENE	ug/L	5 U	1 U	10 U	5.3 U	0.24 U	5 U
PENTACHLOROPHENOL	ug/L	0.04 U	0.11 U	0.6	0.12	0.76	0.54
							1 U
							2.3

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10S	MW-10S
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/06/2000	04/26/2001	09/12/2001	08/07/2002	10/01/2003	04/07/2000	12/05/2000
Field Sample Identification:	00CB09-10	01CB07-97	01CB28-32	02CB18-27	03CB14-23	00CB09-18	01CB01-44
Laboratory Sample Identification:	200405118	210423401	913080-007	02081836-1	19309-001	200405109	201202302
Semivolatiles	Units						
NAPHTALAENE	ug/L	60	5.2 U	130	120	18	512
PENTACHLOROPHENOL	ug/L	9530 J	22800	21000	22000	9000	56100 J
							152
							3810

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-10S	MW-10S	MW-10S	MW-10S	MW-11	MW-11	MW-11
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/25/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000	04/24/2001	09/10/2001
Field Sample Identification:	01CB07-85	01CB28-33	02CB18-29	03CB14-25	00CB09-11	01CB07-76	01CB28-12
Laboratory Sample Identification:	210422711	913080-008	02081836-5	19274-007	200402509	210420916	913080-013
Semivolatiles	Units						
NAPHTHALENE	ug/L	306	75	5 U	1 U	11 U	0.24 U
PENTACHLOROPHENOL	ug/L	49000	82000	390	2200	0.6 U	0.091 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		08/06/2002	09/23/2003	04/06/2000	04/26/2001	09/13/2001	05/14/2002	05/14/2002
Field Sample Identification:		02CB18-31	03CB14-27	00CB09-12	01CB08-03	01CB28-45	02CB14-07	02CB14-07DIL
Laboratory Sample Identification:		02081571-14	19255-014	200405103	210423413	913103-005	02052485-9	02052485-9
Semivolatiles	Units							
NAPHTHALENE	ug/L	5 U	0.98 U	47	44	40	32	NA
PENTACHLOROPHENOL	ug/L	0.04 U	0.11 U	10300 J	1500	18000	4300 J	4300 R

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-13
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/08/2002	04/29/2003	04/05/2000	12/05/2000	01/10/2001	04/23/2001	06/19/2001
Field Sample Identification:	02CB18-33	03CB08-05	00CB09-13	01CB01-52	01CB01-64	01CB07-44	01CB08-69
Laboratory Sample Identification:	02081836-12	18483-018	200403805	201202701	210109501	210419508	210613201
Semivolatiles	Units						
NAPHTHALENE	ug/L	28	17 J	10 U	5.5 U	NA	5.3 UJ
PENTACHLOROPHENOL	ug/L	6400	3000	0.8	114 B	0.312	0.18
							0.11 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/10/2001	08/05/2002	09/23/2003	04/06/2000	06/19/2001	04/04/2000	04/25/2001
Field Sample Identification:	01CB28-13	02CB18-03	03CB14-31	00CB09-14	01CB08-70	00CB09-15	01CB07-70
Laboratory Sample Identification:	913080-014	02081571-6	19255-001	200405101	210613202	200402503	210422701
Semivolatiles	Units						
NAPHTHALENE	ug/L	0.24 U	5 U	1 U	11 U	239	11 U
PENTACHLOROPHENOL	ug/L	0.69	0.64	2.9	0.5 U	0.96	0.5 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/12/2001	08/06/2002	09/23/2003	04/06/2000	04/23/2001	09/10/2001	08/06/2002
Field Sample Identification:	01CB28-35	02CB18-35	03CB14-33	00CB09-16	01CB07-58	01CB28-16	02CB18-37
Laboratory Sample Identification:	913080-002	02081571-24	19255-003	200405114	210419510	913080-019	02081571-19

Semivolatiles	Units						
NAPHTHALENE	ug/L	0.24 U	5 U	0.99 U	10 U	5.6 U	0.24 U
PENTACHLOROPHENOL	ug/L	0.077 J	0.04 U	0.1 U	0.5 U	0.11 U	0.17

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-16	MW-17	MW-17	MW-17	MW-17	MW-17	MW-18
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/23/2003	04/06/2000	04/26/2001	09/11/2001	08/08/2002	09/25/2003	06/19/2001
Field Sample Identification:	03CB14-35	00CB09-17	01CB08-01	01CB28-24	02CB18-39	03CB14-37	01CB08-71
Laboratory Sample Identification:	19255-016	200405107	210423411	913080-028	02081571-46	19274-015	210613203
Semivolatiles	Units						
NAPHTHALENE	ug/L	1.1 U	11 U	54	0.29 U	5 U	5 U
PENTACHLOROPHENOL	ug/L	0.089 J	0.5 U	0.72	0.059 U	0.032 J	0.46
							27400

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/07/2000	04/26/2001	09/12/2001	05/13/2002	05/13/2002	08/08/2002	04/29/2003
Field Sample Identification:	00CB09-19	01CB08-15	01CB28-38	02CB14-09	02CB14-09DIL	02CB18-43	03CB08-07
Laboratory Sample Identification:	200405111	210423409	913080-010	02052485-6	02052485-6	02081836-14	18483-012
Semivolatiles	Units						
NAPHTHALENE	ug/L	22	325	240	190 J	190 R	210
PENTACHLOROPHENOL	ug/L	11000 J	25600	400000	14000 J	14000 R	11000
							1200 J
							4900

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-19	MW-20	MW-20	MW-20	MW-20	MW-21	MW-21
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/25/2003	04/26/2001	09/12/2001	08/07/2002	09/25/2003	05/14/2002	08/06/2002
Field Sample Identification:	03CB14-39	01CB08-08	01CB28-37	02CB18-45	03CB14-41	02CB14-11	02CB18-47
Laboratory Sample Identification:	19274-017	210423407	913080-005	02081836-3	19274-019	02052485-3	02081571-21
Semivolatiles	Units						
NAPHTHALENE	ug/L	3200	9970	890	1400	830	5 U
PENTACHLOROPHENOL	ug/L	15000	36600	83000	30000	13000	0.07 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-21	MW-21	MW-22	MW-22	MW-22	MW-23	MW-24
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/29/2003	09/24/2003	05/14/2002	08/06/2002	09/24/2003	09/11/2001	12/06/2000
Field Sample Identification:	03CB08-09	03CB14-43	02CB14-13	02CB18-49	03CB14-45	01CB28-20	01CB01-55
Laboratory Sample Identification:	18483-001	19267-014	02052485-26	02081571-16	19267-003	913080-023	201206501
Semivolatiles	Units						
NAPHTHALENE	ug/L	7.4 UJ	1 U	5 U	5 U	1 U	0.24 U
PENTACHLOROPHENOL	ug/L	0.15	0.063 J	0.12	0.078	0.34	0.49
							5.9 U
							123 B

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-24	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/24/2001	12/06/2000	01/10/2001	04/24/2001	06/18/2001	09/10/2001	05/14/2002
Field Sample Identification:	01CB07-68	01CB01-53	01CB01-60	01CB07-66	01CB08-67	01CB28-10	02CB14-15
Laboratory Sample Identification:	210420905	201205801	210107204	210420907	210611202	913080-016	02052485-19
Semivolatiles	Units						
NAPHTHALENE	ug/L	5.3 R	5 U	NA	5.4 U	5 U	0.24 U
PENTACHLOROPHENOL	ug/L	0.11	118	0.1 U	0.1 U	1 UJ	0.16 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-26	MW-26	MW-26	MW-26FIL
Sample Interval:	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water
Sample Collection Date:	08/05/2002	04/29/2003	09/23/2003	01/10/2001
Field Sample Identification:	02CB18-01	03CB08-11	03CB14-47	01CB01-62W
Laboratory Sample Identification:	02081571-3	18483-004	19255-006	210107202
Semivolatiles	Units			
NAPHTHALENE	ug/L	5 U	7.1 U	1 U
PENTACHLOROPHENOL	ug/L	0.03 J	0.1 U	0.11 U
				NA
				1.6

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier: PENTA
Field Sample Location: MW-26
Sample Interval: N/A
Matrix: Water
Sample Collection Date: 09/23/2003
Field Sample Identification: 03CB14-47
Laboratory Sample Identification: 19255-006

Volatiles	Units	
BENZENE	ug/L	0.25 UJ
ETHYLBENZENE	ug/L	2.5 UJ
TOLUENE	ug/L	2.5 UJ
XYLENES (TOTAL)	ug/L	2.5 UJ

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	
Field Sample Location:	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Matrix:	Water	Water	Water	Water	Water	Water	Water	
Sample Collection Date:	12/06/2000	04/24/2001	06/18/2001	09/10/2001	05/14/2002	08/05/2002	04/29/2003	
Field Sample Identification:	01CB01-53	01CB07-66	01CB08-67	01CB28-10	02CB14-15	02CB18-01	03CB08-11	
Laboratory Sample Identification:	201205801	210420907	210611202	913080-016	02052485-19	02081571-3	18483-004	
Volatiles	Units							
BENZENE	ug/L	0.1 U	0.1 U	0.1 U	0.44 U	1 UJ	1 U	0.5 U
ETHYLBENZENE	ug/L	1 U	1 U	1 U	0.5 U	5 U	5 U	5 U
TOLUENE	ug/L	1 U	1 U	1 U	0.4 U	5 U	5 U	5 U
XYLENES (TOTAL)	ug/L	1 U	1 U	1 U	1.2 U	5 U	5 U	5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-21	MW-22	MW-22	MW-22	MW-23	MW-24	MW-24
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/24/2003	05/14/2002	08/06/2002	09/24/2003	09/11/2001	12/06/2000	04/24/2001
Field Sample Identification:	03CB14-43	02CB14-13	02CB18-49	03CB14-45	01CB28-20	01CB01-55	01CB07-68
Laboratory Sample Identification:	19267-014	02052485-26	02081571-16	19267-003	913080-023	201206501	210420905

Volatiles	Units						
BENZENE	ug/L	0.25 UJ	1 UJ	1 U	0.25 UJ	0.44 U	0.1 U
ETHYLBENZENE	ug/L	2.5 UJ	5 U	5 U	2.5 UJ	0.5 U	1 U
TOLUENE	ug/L	2.5 UJ	5 U	5 U	2.5 UJ	0.4 U	1 U
XYLENES (TOTAL)	ug/L	2.5 UJ	5 U	5 U	2.5 UJ	1.2 U	1 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-20	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/26/2001	09/12/2001	08/07/2002	09/25/2003	05/14/2002	08/06/2002	04/29/2003
Field Sample Identification:	01CB08-08	01CB28-37	02CB18-45	03CB14-41	02CB14-11	02CB18-47	03CB08-09
Laboratory Sample Identification:	210423407	913080-005	02081836-3	19274-019	02052485-3	02081571-21	18483-001

Volatiles	Units						
BENZENE	ug/L	1 R	0.44 U	1 U	1 UJ	1 UJ	0.5 U
ETHYLBENZENE	ug/L	100 U	3.4 U	12	10 UJ	5 U	5 U
TOLUENE	ug/L	NA	4.1 U	9	10 UJ	5 U	5 U
XYLENES (TOTAL)	ug/L	NA	37	120	60.9 J	5 U	5 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/07/2000	04/26/2001	09/12/2001	05/13/2002	08/08/2002	04/29/2003	09/25/2003
Field Sample Identification:	00CB09-19	01CB08-15	01CB28-38	02CB14-09	02CB18-43	03CB08-07	03CB14-39
Laboratory Sample Identification:	200405111	210423409	913080-010	02052485-6	02081836-14	18483-012	19274-017

Volatiles	Units							
BENZENE	ug/L	0.1 U	1 R	0.44 U	1 UJ	1 U	500 U	1 UJ
ETHYLBENZENE	ug/L	1.3	10 R	1.9 U	2 J	2 J	5000 U	10 UJ
TOLUENE	ug/L	0.6 J	NA	1.7 U	1 J	1 J	5000 U	10 UJ
XYLENES (TOTAL)	ug/L	12	NA	28	31	29	5000 U	46.6 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	
Field Sample Location:	MW-16	MW-17	MW-17	MW-17	MW-17	MW-17	MW-18	
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Matrix:	Water	Water	Water	Water	Water	Water	Water	
Sample Collection Date:	09/23/2003	04/06/2000	04/26/2001	09/11/2001	08/08/2002	09/25/2003	06/19/2001	
Field Sample Identification:	03CB14-35	00CB09-17	01CB08-01	01CB28-24	02CB18-39	03CB14-37	01CB08-71	
Laboratory Sample Identification:	19255-016	200405107	210423411	913080-028	02081571-46	19274-015	210613203	
Volatiles	Units							
BENZENE	ug/L	0.25 UJ	0.1 U	0.1 U	0.44 U	1 U	0.25 UJ	1.1
ETHYLBENZENE	ug/L	2.5 UJ	1 U	1 U	0.5 U	5 U	2.5 UJ	14
TOLUENE	ug/L	2.5 UJ	1 U	1 U	0.4 U	5 U	2.5 UJ	10 U
XYLENES (TOTAL)	ug/L	2.5 UJ	1 U	1 U	1.2 U	5 U	2.5 UJ	20

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/12/2001	08/06/2002	09/23/2003	04/06/2000	04/23/2001	09/10/2001	08/06/2002
Field Sample Identification:	01CB28-35	02CB18-35	03CB14-33	00CB09-16	01CB07-58	01CB28-16	02CB18-37
Laboratory Sample Identification:	913080-002	02081571-24	19255-003	200405114	210419510	913080-019	02081571-19

Volatiles	Units							
BENZENE	ug/L	0.44 U	1 U	0.25 UJ	0.1 U	0.1 U	0.44 U	1 U
ETHYLBENZENE	ug/L	0.5 U	5 U	2.5 UJ	1 U	1 U	0.5 U	5 U
TOLUENE	ug/L	0.4 U	5 U	2.5 UJ	1 U	1 U	0.4 U	5 U
XYLENES (TOTAL)	ug/L	1.2 U	5 U	2.5 UJ	1 U	1 U	1.2 U	5 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/10/2001	08/05/2002	09/23/2003	04/06/2000	06/19/2001	04/04/2000	04/25/2001
Field Sample Identification:	01CB28-13	02CB18-03	03CB14-31	00CB09-14	01CB08-70	00CB09-15	01CB07-70
Laboratory Sample Identification:	913080-014	02081571-6	19255-001	200405101	210613202	200402503	210422701
Volatiles	Units						
BENZENE	ug/L	0.44 U	1 U	0.25 UJ	0.1 U	0.1 U	0.1 U
ETHYLBENZENE	ug/L	0.5 U	5 U	2.5 UJ	1 U	1 U	1 U
TOLUENE	ug/L	0.4 U	5 U	2.5 UJ	1 U	1 U	1 U
XYLENES (TOTAL)	ug/L	1.2 U	5 U	2.5 UJ	1 U	1 U	1 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/08/2002	04/29/2003	09/23/2003	04/05/2000	12/05/2000	04/23/2001	06/19/2001
Field Sample Identification:	02CB18-33	03CB08-05	03CB14-29	00CB09-13	01CB01-52	01CB07-44	01CB08-69
Laboratory Sample Identification:	02081836-12	18483-018	19255-021	200403805	201202701	210419508	210613201

Volatiles	Units						
BENZENE	ug/L	1 U	0.5 U	0.25 UJ	0.15 U	0.1 U	0.12
ETHYLBENZENE	ug/L	2 J	1.3 J	2.5 UJ	1 U	1 U	1 U
TOLUENE	ug/L	2 J	1.3 J	2.5 UJ	1 U	1 U	1 U
XYLENES (TOTAL)	ug/L	15	11	8.6 J	1 U	1 U	1 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/10/2001	08/06/2002	09/23/2003	04/06/2000	04/26/2001	09/13/2001	05/14/2002
Field Sample Identification:	01CB28-12	02CB18-31	03CB14-27	00CB09-12	01CB08-03	01CB28-45	02CB14-07
Laboratory Sample Identification:	913080-013	02081571-14	19255-014	200405103	210423413	913103-005	02052485-9

Volatiles	Units						
BENZENE	ug/L	0.44 U	1 U	0.25 UJ	0.28	0.34	0.44 U
ETHYLBENZENE	ug/L	0.5 U	5 U	2.5 UJ	2.8	2.5	2.3 U
TOLUENE	ug/L	0.4 U	5 U	2.5 UJ	3.6	4.1	3.2 U
XYLENES (TOTAL)	ug/L	1.2 U	5 U	2.5 UJ	22	22	20

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-11	MW-11
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	12/05/2000	04/25/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000	04/24/2001
Field Sample Identification:	01CB01-44	01CB07-85	01CB28-33	02CB18-29	03CB14-25	00CB09-11	01CB07-76
Laboratory Sample Identification:	201202302	210422711	913080-008	02081836-5	19274-007	200402509	210420916

Volatiles	Units							
BENZENE	ug/L	0.1 U	10 U	0.44 U	1 U	0.25 UJ	0.1 U	0.1 U
ETHYLBENZENE	ug/L	5.9	100 U	0.94 J	1 J	2.5 UJ	1 U	1 U
TOLUENE	ug/L	2.9	NA	0.41 J	5 U	2.5 UJ	1 U	1 U
XYLENES (TOTAL)	ug/L	70	NA	15	10	3.4 J	1 U	1 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-09	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10S
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/25/2003	04/06/2000	04/26/2001	09/12/2001	08/07/2002	10/01/2003	04/07/2000
Field Sample Identification:	03CB14-21	00CB09-10	01CB07-97	01CB28-32	02CB18-27	03CB14-23	00CB09-18
Laboratory Sample Identification:	19274-011	200405118	210423401	913080-007	02081836-1	19309-001	200405109

Volatiles	Units							
BENZENE	ug/L	0.25 UJ	0.35	0.4	0.44 U	1 U	0.25 U	0.1 U
ETHYLBENZENE	ug/L	2.5 UJ	4.4	3.3	6.3	7	2.5 U	6.5
TOLUENE	ug/L	2.5 UJ	6.4	5.3	10	11	2.5 U	4.2
XYLENES (TOTAL)	ug/L	2.5 UJ	34	27	55	54	13.5	64

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-08	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/11/2001	08/08/2002	09/25/2003	04/05/2000	04/23/2001	09/12/2001	08/06/2002
Field Sample Identification:	01CB28-18	02CB18-23	03CB14-19	00CB09-09	01CB07-46	01CB28-36	02CB18-25
Laboratory Sample Identification:	913080-035	02081571-38	19274-003	200403803	210419501	913080-004	02081571-11

Volatiles	Units							
BENZENE	ug/L	0.44 U	1 U	0.25 UJ	0.15 U	0.1 U	0.44 U	1 U
ETHYLBENZENE	ug/L	0.5 U	5 U	2.5 UJ	1 U	1 U	0.5 U	5 U
TOLUENE	ug/L	0.4 U	5 U	2.5 UJ	1 U	1 U	0.4 U	5 U
XYLENES (TOTAL)	ug/L	1.2 U	5 U	2.5 UJ	1 U	1 U	1.2 U	5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-07	MW-07	MW-07	MW-07	MW-07	MW-08	MW-08
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/04/2000	04/25/2001	09/11/2001	08/07/2002	09/24/2003	04/05/2000	04/25/2001
Field Sample Identification:	00CB09-07	01CB07-87	01CB28-22	02CB18-21	03CB14-17	00CB09-08	01CB07-93
Laboratory Sample Identification:	200402505	210422708	913080-026	02081571-32	19267-007	200403807	210422715
Volatiles	Units						
BENZENE	ug/L	0.1 U	0.1 U	0.44 U	1 U	0.25 UJ	0.15 U
ETHYLBENZENE	ug/L	1 U	1 U	0.5 U	5 U	2.5 UJ	1 U
TOLUENE	ug/L	1 U	1 U	0.4 U	5 U	2.5 UJ	1 U
XYLENES (TOTAL)	ug/L	1 U	1 U	1.2 U	5 U	2.5 UJ	1 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-05	MW-05	MW-06S	MW-06S	MW-06S	MW-06S	MW-06S
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/07/2002	09/25/2003	04/07/2000	04/26/2001	09/12/2001	08/07/2002	09/25/2003
Field Sample Identification:	02CB18-17	03CB14-13	00CB09-06	01CB08-11	01CB28-34	02CB18-19	03CB14-15
Laboratory Sample Identification:	02081836-7	19274-009	200405113	210423404	913080-001	02081836-10	19274-005

Volatiles	Units							
BENZENE	ug/L	1 U	0.25 UJ	0.1 U	0.1 U	0.44 U	1 U	0.25 UJ
ETHYLBENZENE	ug/L	5 U	2.5 UJ	1 U	1 U	0.5 U	5 U	2.5 UJ
TOLUENE	ug/L	5 U	2.5 UJ	1 U	1 U	0.4 U	5 U	2.5 UJ
XYLENES (TOTAL)	ug/L	5 U	2.5 UJ	1 U	1 U	1.2 U	5 U	2.5 UJ

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-03	MW-03	MW-03	MW-04	MW-05	MW-05	MW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/13/2001	08/07/2002	09/23/2003	04/04/2000	04/07/2000	04/26/2001	09/13/2001
Field Sample Identification:	01CB28-44	02CB18-15	03CB14-11	00CB09-04	00CB09-05	01CB08-05	01CB28-46
Laboratory Sample Identification:	913103-001	02081571-35	19255-008	200402511	200405120	210423416	913103-006

Volatiles	Units							
BENZENE	ug/L	0.44 U	1 U	0.25 UJ	0.1 U	0.33	0.22	0.44 U
ETHYLBENZENE	ug/L	0.5 U	5 U	2.5 UJ	1 U	3.6	0.84 J	0.54 J
TOLUENE	ug/L	0.4 U	5 U	2.5 UJ	1 U	3	1.8	0.78 J
XYLENES (TOTAL)	ug/L	1.2 U	5 U	2.5 UJ	1 U	15	8.1	4.3

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-02	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	06/18/2001	09/12/2001	08/06/2002	09/24/2003	04/04/2000	04/25/2001
Field Sample Identification:	00CB09-02	01CB08-66	01CB28-39	02CB18-13	03CB14-09	00CB09-03	01CB07-83
Laboratory Sample Identification:	200403810	210611201	913080-011	02081571-9	19267-009	200402501	210422706

Volatiles	Units							
BENZENE	ug/L	0.15 U	0.1 U	0.44 U	1 U	0.25 UJ	0.1 U	0.1 U
ETHYLBENZENE	ug/L	1 U	1 U	0.5 U	5 U	2.5 UJ	1 U	1 U
TOLUENE	ug/L	1 U	1 U	0.4 U	5 U	2.5 UJ	1 U	0.46 J
XYLENES (TOTAL)	ug/L	1 U	1 U	1.2 U	5 U	2.5 UJ	1 U	1 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	04/24/2001	09/11/2001	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:	00CB09-01	01CB07-64	01CB28-21	02CB14-05	02CB18-09	03CB08-03	03CB14-05
Laboratory Sample Identification:	200403802	210420901	913080-024	02052485-24	02081571-27	18483-010	19267-005
Volatiles	Units						
BENZENE	ug/L	0.15 U	0.1 U	0.44 U	1 UJ	1 U	0.25 UJ
ETHYLBENZENE	ug/L	1 U	1 U	0.5 U	5 U	5 U	2.5 UJ
TOLUENE	ug/L	1 U	1 U	0.4 U	5 U	5 U	2.5 UJ
XYLENES (TOTAL)	ug/L	1 U	1 U	1.2 U	5 U	5 U	2.5 UJ

Penta Wood LTRA Groundwater Results 2004

Field Site Identifier:	01	01	01	01	01	
Field Sample Location:	MW-01	MW-12	MW-19	MW-21	MW-26	
Sample Interval:	N/A	N/A	N/A	N/A	N/A	
Matrix:	Water	Water	Water	Water	Water	
Sample Collection Date:	05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004	
Field Sample Identification:	04CB05-04	04CB05-07	04CB05-08	04CB05-09	04CB05-10	
Laboratory Sample Identification:	0405056	0405056	0405056	0405056	0405056	
Semivolatiles	Units					
PENTACHLOROPHENOL	ug/l	1.06 J	11200 J	70000 J	0.135 UB	0.242 UB

Penta Wood LTRA Groundwater Results 2004

Field Site Identifier:	01	01	01	01	01
Field Sample Location:	MW-01	MW-12	MW-19	MW-21	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water
Sample Collection Date:	05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:	04CB05-04	04CB05-07	04CB05-08	04CB05-09	04CB05-10
Laboratory Sample Identification:	0405056	0405056	0405056	0405056	0405056

Volatiles	Units					
ETHYLBENZENE	ug/l	5.00 U	1.39 J	2.13 J	5.00 U	5.00 U
TOLUENE	ug/l	5.00 U	1.03 J	1.98 J	5.00 U	5.00 U
BENZENE	ug/l	0.500 U	0.124 J	2.50 U	0.500 U	0.500 U
NAPHTHALENE	ug/l	5.00 U	22.9	201	5.00 U	5.00 U
XYLENES, TOTAL	ug/l	5.00 U	11.2	30.0	5.00 U	5.00 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	04/24/2001	09/11/2001	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:	00CB09-01	01CB07-64	01CB28-21	02CB14-05	02CB18-09	03CB08-03	03CB14-05
Laboratory Sample Identification:	200403802	210420901	913080-024	0205385-06A	02081571-27	18483-010	19267-005
Diss Gases							
Methane							
Units							
ug/L	0.267	0.11 U	10 U	10 UJ	0.01 U	0.5 U	0.5 U

Penta Wood LTRA Groundwater Results 2004

Field Site Identifier:		01	01	01	01	01
Field Sample Location:		MW-01	MW-12	MW-19	MW-21	MW-26
Sample Interval:		N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water
Sample Collection Date:		05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:		04CB05-04	04CB05-07	04CB05-08	04CB05-09	04CB05-10
Laboratory Sample Identification:		0405056	0405056	0405056	0405056	0405056
Diss Gases		Units				
METHANE		ug/l	0.863 J	1.34 J	1.13 J	10.0 U
					10.0 U	

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-02	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	06/18/2001	09/12/2001	08/06/2002	09/24/2003	04/04/2000	09/13/2001
Field Sample Identification:	00CB09-02	01CB08-66	01CB28-39	02CB18-13	03CB14-09	00CB09-03	01CB28-44
Laboratory Sample Identification:	200403810	210611201	913080-011	02081571-9	19267-009	200402501	913103-001

Diss Gases
METHANE

Units
ug/L

0.261

0.14 J

10 U

0.01 U

0.5 U

1.646

10 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-03	MW-03	MW-04	MW-05	MW-05	MW-05	MW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/07/2002	09/23/2003	04/04/2000	04/07/2000	04/26/2001	09/13/2001	09/25/2003
Field Sample Identification:	02CB18-15	03CB14-11	00CB09-04	00CB09-05	01CB08-05	01CB28-46	03CB14-13
Laboratory Sample Identification:	02081571-35	19255-008	200402511	200405120	210423416	913103-006	19274-009
Units ug/L	0.01 U	2.5	0.811	0.936	0.4 J	10 U	0.47 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-06S	MW-06S	MW-06S	MW-06S	MW-07	MW-07	MW-07
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/26/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000	04/25/2001	09/11/2001
Field Sample Identification:	01CB08-11	01CB28-34	02CB18-19	03CB14-15	00CB09-07	01CB07-87	01CB28-22
Laboratory Sample Identification:	210423404	913080-001	02081836-10	19274-005	200402505	210422708	913080-026
Units ug/L	0.12 U	10 U	0.27	130	4.041	4.65	12

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-07	MW-07	MW-08	MW-08	MW-08	MW-08	MW-08
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/07/2002	09/24/2003	04/05/2000	04/25/2001	09/11/2001	08/08/2002	09/25/2003
Field Sample Identification:	02CB18-21	03CB14-17	00CB09-08	01CB07-93	01CB28-18	02CB18-23	03CB14-19
Laboratory Sample Identification:	02081571-32	19267-007	200403807	210422715	913080-035	02081571-38	19274-003
Diss Gases							
Units							
ug/L	0.01 U	4.9	7.194	11.6	10 U	0.01 U	9.2

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	04/23/2001	09/12/2001	08/06/2002	09/25/2003	04/06/2000	04/26/2001
Field Sample Identification:	00CB09-09	01CB07-46	01CB28-36	02CB18-25	03CB14-21	00CB09-10	01CB07-97
Laboratory Sample Identification:	200403803	210419501	913080-004	02081571-11	19274-011	200405118	210423401
Units							
ug/L	0.396	0.12 U	10 U	0.01 U	0.5 U	3.067	2.9

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-10	MW-10	MW-10	MW-10S	MW-10S	MW-10S	MW-10S
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		09/12/2001	08/07/2002	10/01/2003	04/07/2000	12/05/2000	04/25/2001	09/12/2001
Field Sample Identification:		01CB28-32	02CB18-27	03CB14-23	00CB09-18	01CB01-44	01CB07-85	01CB28-33
Laboratory Sample Identification:		913080-007	02081836-1	19309-001	200405109	201202302	210422711	913080-008
Diss Gases		Units						
METHANE		ug/L	10 U	0.011	0.62	1.567	0.57	0.55 J
								10 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-10S	MW-10S	MW-11	MW-11	MW-11	MW-11	MW-11
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		08/07/2002	09/25/2003	04/04/2000	04/24/2001	09/10/2001	08/06/2002	09/23/2003
Field Sample Identification:		02CB18-29	03CB14-25	00CB09-11	01CB07-76	01CB28-12	02CB18-31	03CB14-27
Laboratory Sample Identification:		02081836-5	19274-007	200402509	210420916	913080-013	02081571-14	19255-014
Diss Gases								
METHANE								
	Units							
	ug/L	0.01 U	0.5 U	0.138	0.11 U	10 U	0.01 U	0.5 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/06/2000	04/26/2001	09/13/2001	05/14/2002	08/08/2002	04/29/2003	09/23/2003
Field Sample Identification:		00CB09-12	01CB08-03	01CB28-45	02CB14-07	02CB18-33	03CB08-05	03CB14-29
Laboratory Sample Identification:		200405103	210423413	913103-005	0205385-04A	02081836-12	18483-018	19255-021
Diss Gases	Units							
METHANE	ug/L	1.553	0.99	10 U	10 UJ	0.01 U	0.5 U	0.49 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	12/05/2000	04/23/2001	06/19/2001	09/10/2001	08/05/2002	09/23/2003
Field Sample Identification:	00CB09-13	01CB01-52	01CB07-44	01CB08-69	01CB28-13	02CB18-03	03CB14-31
Laboratory Sample Identification:	200403805	201202701	210419508	210613201	913080-014	02081571-6	19255-001
Diss Gases							
Units							
ug/L	0.291	0.58 U	0.12 U	0.12 U	10 U	0.01 U	0.5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-14	MW-14	MW-15	MW-15	MW-15	MW-15	MW-15
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/06/2000	06/19/2001	04/04/2000	04/25/2001	09/12/2001	08/06/2002	09/23/2003
Field Sample Identification:	00CB09-14	01CB08-70	00CB09-15	01CB07-70	01CB28-35	02CB18-35	03CB14-33
Laboratory Sample Identification:	200405101	210613202	200402503	210422701	913080-002	02081571-24	19255-003
Diss Gases							
METHANE	Units ug/L						
		0.159	0.11 U	0.339	0.1 U	10 U	0.01 U
							0.5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-16	MW-16	MW-16	MW-16	MW-16	MW-17	MW-17
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/06/2000	04/23/2001	09/10/2001	08/06/2002	09/23/2003	04/06/2000	04/26/2001
Field Sample Identification:	00CB09-16	01CB07-58	01CB28-16	02CB18-37	03CB14-35	00CB09-17	01CB08-01
Laboratory Sample Identification:	200405114	210419510	913080-019	02081571-19	19255-016	200405107	210423411
Diss Gases							
Units							
ug/L	1.068	0.12 U	10 U	0.01 U	0.5 U	0.127	0.12 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-17	MW-17	MW-17	MW-18	MW-19	MW-19	MW-19
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/11/2001	08/08/2002	09/25/2003	06/19/2001	04/07/2000	04/26/2001	09/12/2001
Field Sample Identification:	01CB28-24	02CB18-39	03CB14-37	01CB08-71	00CB09-19	01CB08-15	01CB28-38
Laboratory Sample Identification:	913080-028	02081571-46	19274-015	210613203	200405111	210423409	913080-010
Diss Gases							
METHANE							
Units							
ug/L	10 U	0.01 U	0.5 U	0.13 U	0.272	0.5	16

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-19	MW-19	MW-19	MW-19	MW-20	MW-20	MW-20
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		05/13/2002	08/08/2002	04/29/2003	09/25/2003	04/26/2001	09/12/2001	08/07/2002
Field Sample Identification:		02CB14-09	02CB18-43	03CB08-07	03CB14-39	01CB08-08	01CB28-37	02CB18-45
Laboratory Sample Identification:		0205385-03A	02081836-14	18483-012	19274-017	210423407	913080-005	02081836-3
Diss Gases								
METHANE								
	Units							
	ug/L	10 UJ	0.01 U	2.4	5.7	2.73	10 U	0.01 U

Penta Wood LTRA Groundwater Results 2000-2003

	Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
	Field Sample Location:	MW-20	MW-21	MW-21	MW-21	MW-22	MW-22	MW-22
	Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Matrix:	Water	Water	Water	Water	Water	Water	Water
	Sample Collection Date:	09/25/2003	05/14/2002	04/29/2003	09/24/2003	05/14/2002	08/06/2002	09/24/2003
	Field Sample Identification:	03CB14-41	02CB14-11	03CB08-09	03CB14-43	02CB14-13	02CB18-49	03CB14-45
	Laboratory Sample Identification:	19274-019	0205385-02A	18483-001	19267-014	0205385-07A	02081571-16	19267-003
Diss Gases	Units							
METHANE	ug/L	5.4	10 UJ	0.5 U	0.5 U	10 UJ	0.01 U	0.5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-23	MW-24	MW-24	MW-26	MW-26	MW-26	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/11/2001	12/06/2000	04/24/2001	12/06/2000	04/24/2001	06/18/2001	09/10/2001
Field Sample Identification:	01CB28-20	01CB01-55	01CB07-68	01CB01-53	01CB07-66	01CB08-67	01CB28-10
Laboratory Sample Identification:	913080-023	201206501	210420905	201205801	210420907	210611202	913080-016
Diss Gases	Units						
METHANE	ug/L	10 U	0.53 U	0.1 U	0.65 U	0.1 U	0.1 U
							10 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA
Field Sample Location:	MW-26	MW-26	MW-26
Sample Interval:	N/A	N/A	N/A
Matrix:	Water	Water	Water
Sample Collection Date:	08/05/2002	04/29/2003	09/23/2003
Field Sample Identification:	02CB18-01	03CB08-11	03CB14-47
Laboratory Sample Identification:	02081571-3	18483-004	19255-006

Diss Gases
METHANE

Units			
ug/L	0.01 U	0.5 U	0.5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/05/2000	04/24/2001	09/11/2001	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:		00CB09-01	01CB07-64	01CB28-21	02CB14-05	02CB18-09	03CB08-03	03CB14-05
Laboratory Sample Identification:		200403802	210420901	913080-024	02052485-24	02081571-27	18483-010	19267-005
Total Metals	Units							
IRON	mg/L	5670	9830	4000 J	2700	1700	3.16 J	7
MANGANESE	mg/L	NA	642	450 J	247	180 J	0.217 J	0.416
ZINC	mg/L	10.6	16 J	20 J	8.1 J	5.8 J	0.01 UJ	0.02 J
ARSENIC	mg/L	2.4	2.4	1.3 J	1.4 U	1.4 UJ	0.001 U	0.001 J
COPPER	mg/L	23.9	33	25 J	12.1 J	7.6	0.014 J	0.021

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-02	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/05/2000	06/18/2001	09/12/2001	08/06/2002	09/24/2003	04/04/2000	04/25/2001
Field Sample Identification:		00CB09-02	01CB08-66	01CB28-39	02CB18-13	03CB14-09	00CB09-03	01CB07-83
Laboratory Sample Identification:		200403810	210611201	913080-011	02081571-9	19267-009	200402501	210422706
Total Metals		Units						
IRON	mg/L	21700	39900	29000 J	10000	41.3	719	147
MANGANESE	mg/L	NA	1230	1200 J	420 J	1.18	NA	7.3 J
ZINC	mg/L	33.7	64	69 J	26	0.08	10 U	25 U
ARSENIC	mg/L	2.1 U	6.7	3.9 J	6.4 J	0.008	2.1 U	1 U
COPPER	mg/L	64.2	109	110 J	30	0.1	5 U	25 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-03	MW-03	MW-03	MW-04	MW-05	MW-05	MW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/13/2001	08/07/2002	09/23/2003	04/04/2000	04/07/2000	04/26/2001	09/13/2001
Field Sample Identification:	01CB28-44	02CB18-15	03CB14-11	00CB09-04	00CB09-05	01CB08-05	01CB28-46
Laboratory Sample Identification:	913103-001	02081571-35	19255-008	200402511	200405120	210423416	913103-006
Total Metals	Units						
IRON	mg/L	2400 J	480	0.15	1040	17500	26000 J
MANGANESE	mg/L	31 J	15 J	0.05 U	NA	NA	8500 J
ZINC	mg/L	3.7 U	1.4 J	0.01 U	10 U	10 U	4.2 J
ARSENIC	mg/L	0.35 J	1.7 J	0.001 U	2.1 U	4.9	8.2 J
COPPER	mg/L	2.2 UJ	2.3 J	0.001 J	5 U	142.8	100 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-05	MW-05	MW-06S	MW-06S	MW-06S	MW-06S	MW-07
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/07/2002	09/25/2003	04/26/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000
Field Sample Identification:	02CB18-17	03CB14-13	01CB08-11	01CB28-34	02CB18-19	03CB14-15	00CB09-07
Laboratory Sample Identification:	02081836-7	19274-009	210423404	913080-001	02081836-10	19274-005	200402505

Total Metals	Units							
IRON	mg/L	34500	35.1 J	82800	42000 J	7570	5.9 J	505
MANGANESE	mg/L	8130	9.45	1950	1900 J	2210	1.19	NA
ZINC	mg/L	104	0.02 J	131	110 J	18.3	0.01 J	47.5
ARSENIC	mg/L	4.1	0.004 J	15	7.4 J	5.5	0.001 J	2.1 U
COPPER	mg/L	28	0.05	202	190 J	69.1	0.022	5 U

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-07	MW-07	MW-07	MW-07	MW-08	MW-08	MW-08
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/25/2001	09/11/2001	08/07/2002	09/24/2003	04/05/2000	04/25/2001	09/11/2001
Field Sample Identification:	01CB07-87	01CB28-22	02CB18-21	03CB14-17	00CB09-08	01CB07-93	01CB28-18
Laboratory Sample Identification:	210422708	913080-026	02081571-32	19267-007	200403807	210422715	913080-035

Total Metals	Units							
IRON	mg/L	352	560	730	0.28	1040	829	350
MANGANESE	mg/L	5.4 J	6.4 J	6.5 J	0.006 J	NA	32	19 J
ZINC	mg/L	25 U	3.7 UJ	2.8 J	0.01 U	473	25 U	3.7 UJ
ARSENIC	mg/L	1 U	0.4 J	1.5 J	0.001 U	2.1 U	0.99 J	1.2 J
COPPER	mg/L	25 U	2.2 UJ	0.3 UJ	0.001 U	5 U	25 U	2.2 UJ

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/08/2002	09/25/2003	04/05/2000	04/23/2001	09/12/2001	08/06/2002	09/25/2003
Field Sample Identification:	02CB18-23	03CB14-19	00CB09-09	01CB07-46	01CB28-36	02CB18-25	03CB14-21
Laboratory Sample Identification:	02081571-38	19274-003	200403803	210419501	913080-004	02081571-11	19274-011

Total Metals	Units							
IRON	mg/L	98	0.24 J	757	470	300	200	7.4 J
MANGANESE	mg/L	6.4 J	0.008 J	NA	46	27 J	14 J	0.229
ZINC	mg/L	12	0.01 U	10 U	25 U	11 J	6.4 J	0.02 J
ARSENIC	mg/L	1.4 UJ	0.001 U	2.1 U	0.38 J	0.43 J	1.4 UJ	0.001 J
COPPER	mg/L	0.3 UJ	0.001 U	6.8	25 U	6.1 J	1.6 J	0.02

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-10	MW-10	MW-10	MW-10	MW-10	MW-10S	MW-10S
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/06/2000	04/26/2001	09/12/2001	08/07/2002	10/01/2003	04/07/2000	12/05/2000
Field Sample Identification:		00CB09-10	01CB07-97	01CB28-32	02CB18-27	03CB14-23	00CB09-18	01CB01-44
Laboratory Sample Identification:		200405118	210423401	913080-007	02081836-1	19309-001	200405109	201202302
Total Metals	Units							
IRON	mg/L	3530	25200	20000 J	24400	5.47	32800	11000
MANGANESE	mg/L	NA	2560	3300 J	2730	1.96	NA	7100
ZINC	mg/L	10 U	44	13 J	2.8 UB	0.02 J	73	35
ARSENIC	mg/L	2.1 U	3.1	4.5 J	9.5	0.002 J	5.3	9.36
COPPER	mg/L	12	98	40 J	48.2	0.03	199.2	160

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-10S	MW-10S	MW-10S	MW-10S	MW-11	MW-11	MW-11
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/25/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000	04/24/2001	09/10/2001
Field Sample Identification:		01CB07-85	01CB28-33	02CB18-29	03CB14-25	00CB09-11	01CB07-76	01CB28-12
Laboratory Sample Identification:		210422711	913080-008	02081836-5	19274-007	200402509	210420916	913080-013
Total Metals								
IRON	Units							
	mg/L	131000	35000 J	9490	1.76 J	351	151	66 J
MANGANESE	mg/L	7990	8600 J	7560	5.91	NA	15 U	1.9 J
ZINC	mg/L	216	100 J	22.4	0.01 U	16.4	126	9.1 J
ARSENIC	mg/L	18	5.1 J	3.9	0.001 U	2.1 U	1.4	1.4 J
COPPER	mg/L	409	170 J	53.3	0.007 J	5.6	25 U	2.9 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/06/2002	09/23/2003	04/06/2000	04/26/2001	09/13/2001	05/14/2002	08/08/2002
Field Sample Identification:	02CB18-31	03CB14-27	00CB09-12	01CB08-03	01CB28-45	02CB14-07	02CB18-33
Laboratory Sample Identification:	02081571-14	19255-014	200405103	210423413	913103-005	02052485-9	02081836-12

Total Metals

	Units						
IRON	mg/L	46	0.16	222	151	770 J	67.6
MANGANESE	mg/L	2.3 J	0.005 U	NA	1540	1300 J	1670
ZINC	mg/L	6.4 J	0.02 U	10 U	25 U	9.3 J	14.1 J
ARSENIC	mg/L	4.7 J	0.001 U	2.1 U	1 J	1.1 J	2 J
COPPER	mg/L	0.83 J	0.002	9.4	25 U	5 J	5.3 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-13
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/29/2003	09/23/2003	04/05/2000	12/05/2000	04/23/2001	06/19/2001	09/10/2001
Field Sample Identification:	03CB08-05	03CB14-29	00CB09-13	01CB01-52	01CB07-44	01CB08-69	01CB28-13
Laboratory Sample Identification:	18483-018	19255-021	200403805	201202701	210419508	210613201	913080-014

Total Metals	Units							
IRON	mg/L	0.23 J	0.07 J	158000	26000	56300	32800	14000 J
MANGANESE	mg/L	1.64 J	1.42	NA	870	1300	848	510 J
ZINC	mg/L	0.01 UJ	0.01 U	257	52	89	45	37 J
ARSENIC	mg/L	0.001 J	0.001 U	27	1 U	14	9.1	3.9 J
COPPER	mg/L	0.005 J	0.004	429	92	140	68	49 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-15
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/05/2002	09/23/2003	04/06/2000	06/19/2001	04/04/2000	04/25/2001	09/12/2001
Field Sample Identification:	02CB18-03	03CB14-31	00CB09-14	01CB08-70	00CB09-15	01CB07-70	01CB28-35
Laboratory Sample Identification:	02081571-6	19255-001	200405101	210613202	200402503	210422701	913080-002

Total Metals	Units							
IRON	mg/L	19000	24.6	50 U	1070	652	58	63 J
MANGANESE	mg/L	580 J	0.687	NA	57	NA	4.8 J	2.7 J
ZINC	mg/L	39.5	0.05	10 U	25 U	13.9	50	36 J
ARSENIC	mg/L	9.1 J	0.003	2.1 U	2	2.1 U	0.5 J	0.95 J
COPPER	mg/L	55.3	0.055	5 U	5.4 J	7.1	25 U	5.7 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-15	MW-15	MW-16	MW-16	MW-16	MW-16	MW-16
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		08/06/2002	09/23/2003	04/06/2000	04/23/2001	09/10/2001	08/06/2002	09/23/2003
Field Sample Identification:		02CB18-35	03CB14-33	00CB09-16	01CB07-58	01CB28-16	02CB18-37	03CB14-35
Laboratory Sample Identification:		02081571-24	19255-003	200405114	210419510	913080-019	02081571-19	19255-016
Total Metals	Units							
IRON	mg/L	130	0.28	11800	22300	5500 J	6800	7.47
MANGANESE	mg/L	2.8 J	0.009 J	NA	1460	520 J	14 J	0.532
ZINC	mg/L	17	0.01 J	14.1	136	19 J	760	0.01 J
ARSENIC	mg/L	3.7 J	0.001 U	5.4	6.5	1.8 J	3.5 J	0.002 J
COPPER	mg/L	1.6 J	0.001 J	34.6	62	23 J	25	0.018

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-17	MW-17	MW-17	MW-17	MW-17	MW-18	MW-19
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/06/2000	04/26/2001	09/11/2001	08/08/2002	09/25/2003	06/19/2001	04/07/2000
Field Sample Identification:		00CB09-17	01CB08-01	01CB28-24	02CB18-39	03CB14-37	01CB08-71	00CB09-19
Laboratory Sample Identification:		200405107	210423411	913080-028	02081571-46	19274-015	210613203	200405111
Total Metals		Units						
IRON	mg/L	50 U	33	330 J	11 UJ	0.05 U	15200	28300
MANGANESE	mg/L	NA	15 U	0.27 UJ	0.42 UJ	0.005 U	6540	NA
ZINC	mg/L	10 U	12 J	3.7 U	0.98 U	0.01 U	25 U	48.4
ARSENIC	mg/L	2.1 U	0.6 J	0.94 J	3 J	0.001 U	4.9	3.4
COPPER	mg/L	5 U	25 U	2.2 UJ	0.47 J	0.001 UJ	43	96.8

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/26/2001	09/12/2001	05/13/2002	08/08/2002	04/29/2003	09/25/2003	04/26/2001
Field Sample Identification:		01CB08-15	01CB28-38	02CB14-09	02CB18-43	03CB08-07	03CB14-39	01CB08-08
Laboratory Sample Identification:		210423409	913080-010	02052485-6	02081836-14	18483-012	19274-017	210423407
Total Metals		Units						
IRON	mg/L	10000	5600 J	108	719	2.03 J	0.95 J	33200
MANGANESE	mg/L	1840	2100 J	2110	3100	3.67 J	2.21 J	3120
ZINC	mg/L	27	53 J	7.3 J	290	0.01 UJ	0.01 U	126
ARSENIC	mg/L	2.2	1.7 J	1.9 J	7	0.002 J	0.001 U	8.2
COPPER	mg/L	38	44 J	12.9 J	30.2	0.024 J	0.027 J	196

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-20	MW-20	MW-20	MW-21	MW-21	MW-21	MW-21
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		09/12/2001	08/07/2002	09/25/2003	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:		01CB28-37	02CB18-45	03CB14-41	02CB14-11	02CB18-47	03CB08-09	03CB14-43
Laboratory Sample Identification:		913080-005	02081836-3	19274-019	02052485-3	02081571-21	18483-001	19267-014
Total Metals	Units							
IRON	mg/L	7900 J	4910	7.22 J	14200	10000	3.44 J	68.4
MANGANESE	mg/L	3200 J	3520	3.31	1100	930 J	0.227 J	3.75
ZINC	mg/L	36 J	16.6	0.02 J	50.8	29	0.01 UJ	0.15
ARSENIC	mg/L	3.6 J	8.9	0.002 J	3.7	4.4 J	0.001 U	0.001 U
COPPER	mg/L	81 J	87.4	0.058 J	81.7	50	0.012 J	0.26

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-22	MW-22	MW-22	MW-23	MW-24	MW-24	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	05/14/2002	08/06/2002	09/24/2003	09/11/2001	12/06/2000	04/24/2001	12/06/2000
Field Sample Identification:	02CB14-13	02CB18-49	03CB14-45	01CB28-20	01CB01-55	01CB07-68	01CB01-53
Laboratory Sample Identification:	02052485-26	02081571-16	19267-003	913080-023	201206501	210420905	201205801

Total Metals	Units							
IRON	mg/L	16900	2500	56.9	630	6500	7310	16000
MANGANESE	mg/L	1080	170 J	2.57	140 J	530	508	300
ZINC	mg/L	38.7	7.3	0.12	37 J	11 J	23 J	35
ARSENIC	mg/L	7.2	2.2 J	0.007	1.2 J	1.6	2.4	2.8
COPPER	mg/L	73.2	9.8	0.14	6.3 J	27	30	27

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/24/2001	06/18/2001	09/10/2001	05/14/2002	08/05/2002	04/29/2003	09/23/2003
Field Sample Identification:		01CB07-66	01CB08-67	01CB28-10	02CB14-15	02CB18-01	03CB08-11	03CB14-47
Laboratory Sample Identification:		210420907	210611202	913080-016	02052485-19	02081571-3	18483-004	19255-006
Total Metals		Units						
IRON	mg/L	6980	9140	2300 J	1530	385	1.29 J	0.74
MANGANESE	mg/L	132	232	94 J	57.2	17.2 J	0.046 J	0.029
ZINC	mg/L	24 J	28	24 J	9.7 J	16.3	0.01 UJ	0.01 U
ARSENIC	mg/L	3	3.6	1.5 J	1.4 J	3 J	0.001 U	0.001 U
COPPER	mg/L	13 J	18 J	10 J	5 J	2.5 J	0.004 J	0.001 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-20	MW-21	MW-21	MW-21	MW-21	MW-22	MW-22
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/25/2003	05/14/2002	08/06/2002	04/29/2003	09/24/2003	05/14/2002	08/06/2002
Field Sample Identification:	03CB14-41	02CB14-11	02CB18-47	03CB08-09	03CB14-43	02CB14-13	02CB18-49
Laboratory Sample Identification:	19274-019	02052485-3	02081571-21	18483-001	19267-014	02052485-26	02081571-16

Total Metals	Units						
IRON	mg/L	7.22 J	14200	10000	3.44 J	68.4	2500
MANGANESE	mg/L	3.31	1100	930 J	0.227 J	3.75	170 J
ZINC	mg/L	0.02 J	50.8	29	0.01 UJ	0.15	7.3
ARSENIC	mg/L	0.002 J	3.7	4.4 J	0.001 U	0.001 U	2.2 J
COPPER	mg/L	0.058 J	81.7	50	0.012 J	0.26	9.8

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-22	MW-23	MW-24	MW-24	MW-26	MW-26	MW-26
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		09/24/2003	09/11/2001	12/06/2000	04/24/2001	12/06/2000	04/24/2001	06/18/2001
Field Sample Identification:		03CB14-45	01CB28-20	01CB01-55	01CB07-68	01CB01-53	01CB07-66	01CB08-67
Laboratory Sample Identification:		19267-003	913080-023	201206501	210420905	201205801	210420907	210611202
Total Metals	Units							
IRON	mg/L	56.9	630	6500	7310	16000	6980	9140
MANGANESE	mg/L	2.57	140 J	530	508	300	132	232
ZINC	mg/L	0.12	37 J	11 J	23 J	35	24 J	28
ARSENIC	mg/L	0.007	1.2 J	1.6	2.4	2.8	3	3.6
COPPER	mg/L	0.14	6.3 J	27	30	27	13 J	18 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		09/10/2001	05/14/2002	08/05/2002	04/29/2003	09/23/2003	09/23/2003	09/23/2003
Field Sample Identification:		01CB28-10	02CB14-15	02CB18-01	03CB08-11	03CB14-47	03CB14-47RE	03CB14-48RE
Laboratory Sample Identification:		913080-016	02052485-19	02081571-3	18483-004	19255-006	19255-006	19255-007
Total Metals	Units							
IRON	mg/L	2300 J	1530	385	1.29 J	0.74	NA	NA
MANGANESE	mg/L	94 J	57.2	17.2 J	0.046 J	0.029	NA	NA
ZINC	mg/L	24 J	9.7 J	16.3	0.01 UJ	0.01 U	0.01 U	0.01 U
ARSENIC	mg/L	1.5 J	1.4 J	3 J	0.001 U	0.001 U	NA	NA
COPPER	mg/L	10 J	5 J	2.5 J	0.004 J	0.001 J	NA	NA

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2004

Field Site Identifier:	01	01	01	01	01
Field Sample Location:	MW-01	MW-12	MW-19	MW-21	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water
Sample Collection Date:	05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:	04CB05-04	04CB05-07	04CB05-08	04CB05-09	04CB05-10
Laboratory Sample Identification:	0405056	0405056	0405056	0405056	0405056

Total Metals	Units					
MAGNESIUM	ug/L	13900	45900	17600	19300	26700
CALCIUM	ug/L	40400	102000	41500	43600	69900
IRON	ug/l	790	52.7	892	14000	458
MANGANESE	ug/l	135	1730	4040	1970	17.8
ARSENIC	ug/l	0.346 J	0.564 J	0.284 J	2.31	0.264 J
COPPER	ug/l	5.73 J	5.50 J	22.2 J	72.5	2.62 J
ZINC	ug/l	7.43 J	10.8 J	11.6 J	46.5	10.5 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	04/24/2001	09/11/2001	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:	00CB09-01	01CB07-65	01CB28-21	02CB14-06	02CB18-10	03CB08-04	03CB14-06
Laboratory Sample Identification:	200403802	210420902	913080-024	02052485-25	02081571-28	18483-016	19267-006

Diss Metals	Units							
IRON	mg/L	50 U	25 U	35 U	11.2 U	11 U	0.025 U	0.1 J
MANGANESE	mg/L	2 U	15 U	0.79 J	0.48 J	0.95 J	0.005 UJ	0.036
ZINC	mg/L	NA	25 U	3.7 UJ	5.4 J	3.9	0.01 UJ	0.01 U
ARSENIC	mg/L	2.6	1 U	0.7 J	1.4 U	1.7 J	0.001 U	0.001 U
COPPER	mg/L	NA	25 U	4 J	1.6 J	0.3 UJ	0.001 U	0.001 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-02	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	06/18/2001	09/12/2001	08/06/2002	09/24/2003	04/04/2000	04/25/2001
Field Sample Identification:	00CB09-02	01CB08-66	01CB28-39	02CB18-14	03CB14-10	00CB09-03	01CB07-84
Laboratory Sample Identification:	200403810	210611201	913080-011	02081571-10	19267-010	200402501	210422707

Diss Metals	Units							
IRON	mg/L	50 U	24 J	35 U	48	3.03	498 J	142
MANGANESE	mg/L	3.4	8.3	57 J	18	0.443	10.3	7.9 J
ZINC	mg/L	NA	25 U	5.2 J	9.1	0.02	NA	25 U
ARSENIC	mg/L	2.1 U	0.37 J	0.29 J	1.4 UJ	0.001 U	5 U	1 U
COPPER	mg/L	NA	25 U	2.2 U	0.3 UJ	0.016	NA	25 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-03	MW-03	MW-03	MW-04	MW-05	MW-05	MW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/13/2001	08/07/2002	09/24/2003	04/04/2000	04/07/2000	04/26/2001	09/13/2001
Field Sample Identification:	01CB28-44	02CB18-16	03CB14-12	00CB09-04	00CB09-05	01CB08-06	01CB28-46
Laboratory Sample Identification:	913103-001	02081571-36	19255-009	200402511	200405120	210423417	913103-006

Diss Metals	Units							
IRON	mg/L	930	160	0.05 U	50 U	3370	7630	4100 J
MANGANESE	mg/L	31 J	12 J	0.008 J	47	3350	11300	8500 J
ZINC	mg/L	3.7 U	4.8	0.01 U	NA	NA	25 U	6.2 J
ARSENIC	mg/L	0.29 UJ	1.9 J	0.001 U	5 U	5.4	3.9	3.7 J
COPPER	mg/L	2.2 UJ	0.58 J	0.001 UJ	NA	NA	25 U	5.1 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-05	MW-05	MW-06S	MW-06S	MW-06S	MW-06S	MW-07
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/07/2002	09/25/2003	04/26/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000
Field Sample Identification:	02CB18-18	03CB14-14	01CB08-12	01CB28-34	02CB18-20	03CB14-16	00CB09-07
Laboratory Sample Identification:	02081836-8	19274-010	210423405	913080-001	02081836-11	19274-006	200402505

Diss Metals	Units							
IRON	mg/L	7900	13.4	25 U	35 U	3330	1.1	359 J
MANGANESE	mg/L	7840	8.32 J	347	800 J	1790	0.961	26.2
ZINC	mg/L	26.9 UB	0.01 U	25 U	5 J	9.7 UB	0.01 J	NA
ARSENIC	mg/L	2 UB	0.003	0.26 J	0.58 J	2.7	0.001 J	5 U
COPPER	mg/L	1.5 UB	0.007 J	25 U	3.1 J	9.9 UB	0.009 J	NA

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-07	MW-07	MW-07	MW-07	MW-08	MW-08	MW-08
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/25/2001	09/11/2001	08/07/2002	09/24/2003	04/05/2000	04/25/2001	09/11/2001
Field Sample Identification:		01CB07-88	01CB28-22	02CB18-22	03CB14-18	00CB09-08	01CB07-94	01CB28-18
Laboratory Sample Identification:		210422709	913080-026	02081571-33	19267-012	200403807	210422716	913080-035
Diss Metals	Units							
IRON	mg/L	154	230	300	0.09 J	50 U	25 U	70 J
MANGANESE	mg/L	6.6 J	4.4 J	4 J	0.005 U	5.3	27	18 J
ZINC	mg/L	25 U	5.2 J	0.98 U	0.01 U	NA	25 U	4.3 J
ARSENIC	mg/L	1 U	0.29 J	1.4 UJ	0.001 U	2.1 U	0.75 J	1 J
COPPER	mg/L	25 U	2.2 U	0.3 UJ	0.001 UJ	NA	25 U	2.2 UJ

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/08/2002	09/25/2003	04/05/2000	04/24/2001	09/12/2001	08/06/2002	09/25/2003
Field Sample Identification:	02CB18-24	03CB14-20	00CB09-09	01CB07-47	01CB28-36	02CB18-26	03CB14-22
Laboratory Sample Identification:	02081571-39	19274-004	200403803	210419504	913080-004	02081571-12	19274-012

Diss Metals	Units							
IRON	mg/L	11	0.05 U	50 U	25 U	110	11 U	0.24 J
MANGANESE	mg/L	5.3 J	0.006 J	21.7	34	16 J	6.3 J	0.005 U
ZINC	mg/L	2.3	0.01 U	NA	25 U	6.6 J	9.6	0.01 U
ARSENIC	mg/L	1.8 J	0.001 U	3.9	0.28 J	0.34 J	1.4 UJ	0.001 U
COPPER	mg/L	0.27 UJ	0.001 UJ	NA	25 U	2.2 U	0.3 UJ	0.001 UJ

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10S	MW-10S
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/06/2000	04/26/2001	09/12/2001	08/07/2002	10/01/2003	04/07/2000	12/05/2000
Field Sample Identification:	00CB09-10	01CB07-98	01CB28-32	02CB18-28	03CB14-24	00CB09-18	01CB01-44
Laboratory Sample Identification:	200405118	210423402	913080-007	02081836-2	19309-002	200405109	201202302

Diss Metals	Units							
IRON	mg/L	115.9 J	5650	2400 J	10700	2.59	50 U	610 J
MANGANESE	mg/L	1590	2380	3200 J	2540	1.85	10100	6900
ZINC	mg/L	NA	25 U	9.5 J	6.1 UB	0.01 U	NA	25 U
ARSENIC	mg/L	5	2.4	3.9 J	7.3	0.002 J	2.1 U	0.74 J
COPPER	mg/L	NA	5.9 J	3.9 J	10.1	0.008	NA	13 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-10S	MW-10S	MW-10S	MW-10S	MW-11	MW-11	MW-11
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/25/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000	04/24/2001	09/10/2001
Field Sample Identification:		01CB07-86	01CB28-33	02CB18-30	03CB14-26	00CB09-11	01CB07-77	01CB28-12
Laboratory Sample Identification:		210422712	913080-008	02081836-6	19274-008	200402509	210420917	913080-013
Diss Metals	Units							
IRON	mg/L	11300	48 J	67.3	0.05 U	50 U	25 U	35 U
MANGANESE	mg/L	6030	7600 J	7070	5.9	2 U	15 U	0.45 J
ZINC	mg/L	45	3.7 UJ	0.98 U	0.01 U	NA	25 U	3.7 UJ
ARSENIC	mg/L	2.3	0.29 J	3.1	0.001 U	5 U	1.3	1.1 J
COPPER	mg/L	46	3.2 J	2.3 UB	0.001 J	NA	25 U	2.2 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/06/2002	09/23/2003	04/06/2000	04/26/2001	09/13/2001	05/14/2002	08/08/2002
Field Sample Identification:	02CB18-32	03CB14-28	00CB09-12	01CB08-04	01CB28-45	02CB14-08	02CB18-34
Laboratory Sample Identification:	02081571-15	19255-015	200405103	210423414	913103-005	02052485-10	02081836-13

Diss Metals	Units						
IRON	mg/L	11.2 U	0.05 U	112.8 J	131	740	11.2 U
MANGANESE	mg/L	1.2 J	0.005 U	1590	1570	1400 J	1680
ZINC	mg/L	8.5	0.01 U	NA	25 U	12	12 J
ARSENIC	mg/L	1.5 J	0.001 U	5.8	0.91 J	0.95 J	1.4 U
COPPER	mg/L	0.3 UJ	0.001 UJ	NA	25 U	6.8 J	4.9 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-13
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/29/2003	09/23/2003	04/05/2000	12/05/2000	04/23/2001	06/19/2001	09/10/2001
Field Sample Identification:	03CB08-06	03CB14-30	00CB09-13	01CB01-52	01CB07-45	01CB08-69	01CB28-13
Laboratory Sample Identification:	18483-019	19255-022	200403805	201202701	210419509	210613201	913080-014

Diss Metals	Units							
IRON	mg/L	0.025 U	0.05 U	50 U	230	25 U	141	52 J
MANGANESE	mg/L	1.56 J	1.53	111.8	66	110	26	27 J
ZINC	mg/L	0.01 UJ	0.01 U	NA	25 U	25 U	25 U	4.7 J
ARSENIC	mg/L	0.001 U	0.001 U	3.8	NA	0.24 J	1.1	0.54 J
COPPER	mg/L	0.004	0.003	NA	25 U	25 U	6.1 J	2.8 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-15
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		08/05/2002	09/23/2003	04/06/2000	06/19/2001	04/04/2000	04/25/2001	09/12/2001
Field Sample Identification:		02CB18-04	03CB14-32	00CB09-14	01CB08-70	00CB09-15	01CB07-71	01CB28-35
Laboratory Sample Identification:		02081571-7	19255-002	200405101	210613202	200402503	210422702	913080-002
Diss Metals	Units							
IRON	mg/L	1300	0.96	50 U	25 U	50 U	25 U	35 U
MANGANESE	mg/L	45	0.182	2 U	4.4 J	2 U	15 U	0.31 J
ZINC	mg/L	9.1	0.01 J	NA	25 U	NA	15 J	35 J
ARSENIC	mg/L	2.2 J	0.001 U	2.6	1.4	5 U	0.31 J	0.95 J
COPPER	mg/L	2.5 J	0.008	NA	25 UJ	NA	25 U	2.9 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16	MW-16
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/06/2002	09/23/2003	04/06/2000	04/23/2001	09/10/2001	08/06/2002	09/23/2003
Field Sample Identification:	02CB18-36	03CB14-34	00CB09-16	01CB07-59	01CB28-16	02CB18-38	03CB14-36
Laboratory Sample Identification:	02081571-25	19255-004	200405114	210419511	913080-019	02081571-20	19255-017

Diss Metals	Units							
IRON	mg/L	11 U	0.05 U	50 U	26	35 J	78	0.05 U
MANGANESE	mg/L	0.42 UJ	0.005 U	1690	9.4 J	0.82 J	9.1 J	0.005 U
ZINC	mg/L	11	0.01 U	NA	23 J	4.5 J	13	0.01 U
ARSENIC	mg/L	2.6 J	0.001 U	2.1 U	1 U	0.29 J	1.4 UJ	0.001 U
COPPER	mg/L	0.3 UJ	0.001 UJ	NA	25 U	2.2 U	0.3 U	0.001 UJ

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-17	MW-17	MW-17	MW-17	MW-17	MW-18	MW-19
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		04/06/2000	04/26/2001	09/11/2001	08/08/2002	09/25/2003	06/19/2001	04/07/2000
Field Sample Identification:		00CB09-17	01CB08-02	01CB28-24	02CB18-40	03CB14-38	01CB08-71	00CB09-19
Laboratory Sample Identification:		200405107	210423412	913080-028	02081571-47	19274-016	210613203	200405111
Diss Metals	Units							
IRON	mg/L	50 U	25 U	310	11 U	0.05 U	13700	50 U
MANGANESE	mg/L	2 U	15 U	0.27 UJ	0.42 UJ	0.005 U	6650	2 U
ZINC	mg/L	NA	25 U	3.7 U	15	0.01 U	25 U	NA
ARSENIC	mg/L	2.5	0.69 J	1 J	1.9 J	0.001 U	5	3.7
COPPER	mg/L	NA	25 U	2.2 UJ	0.3 UJ	0.001 UJ	21 J	NA

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/26/2001	09/12/2001	05/13/2002	08/08/2002	04/29/2003	09/25/2003	04/26/2001
Field Sample Identification:	01CB08-16	01CB28-38	02CB14-10	02CB18-44	03CB08-08	03CB14-40	01CB08-09
Laboratory Sample Identification:	210423410	913080-010	02052485-7	02081836-15	18483-013	19274-018	210423408

Diss Metals
IRON
MANGANESE
ZINC
ARSENIC
COPPER

Units
mg/L
mg/L
mg/L
mg/L
mg/L

25 U	71 J	11.2 U	218	0.025 U	0.05 J	841
1790	1800 J	2070	3110	3.59 J	4.47 J	2250
25 U	5.8 J	9.4 J	5.7 UB	0.01 UJ	0.01 U	23 J
1 U	0.29 J	1.4 U	1.4 U	0.001 U	0.001 U	1.1
25 U	6.4 J	5.1 J	7.1 UB	0.005	0.009 J	14 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-20	MW-20	MW-20	MW-21	MW-21	MW-21	MW-21
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		09/12/2001	08/07/2002	09/25/2003	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:		01CB28-37	02CB18-46	03CB14-42	02CB14-12	02CB18-48	03CB08-10	03CB14-44
Laboratory Sample Identification:		913080-005	02081836-4	19274-020	02052485-4	02081571-22	18483-002	19267-015
Diss Metals		Units						
IRON	mg/L	35 U	206	0.35 J	130	11 U	0.025 U	0.05 U
MANGANESE	mg/L	2800 J	3280	3.25 J	9.7 J	0.63 J	0.005 UJ	0.005 U
ZINC	mg/L	12 J	15.4 UB	0.01 J	11 J	6.8	0.01 UJ	0.01 U
ARSENIC	mg/L	1.5 J	2.6	0.001 U	1.9 J	1.6 J	0.001 U	0.001 U
COPPER	mg/L	15 U	5.8 UB	0.011 J	1.3 J	0.3 UJ	0.001 U	0.001 UJ

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:		PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:		MW-22	MW-22	MW-22	MW-23	MW-24	MW-24	MW-26
Sample Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:		05/14/2002	08/06/2002	09/24/2003	09/11/2001	12/06/2000	04/24/2001	12/06/2000
Field Sample Identification:		02CB14-14	02CB18-50	03CB14-46	01CB28-20	01CB01-55	01CB07-69	01CB01-53
Laboratory Sample Identification:		02052485-27	02081571-17	19267-004	913080-023	201206501	210420906	201205801
Parameter	Units							
IRON	mg/L	22.9 J	25	2.77	35 U	25 U	25 U	25 U
MANGANESE	mg/L	3.5 J	0.42 UJ	0.542	29 J	15 U	2.4 J	94
ZINC	mg/L	2.7 J	4.9	0.02 J	4.7 J	25 U	11 J	17 J
ARSENIC	mg/L	1.4 U	1.4 UJ	0.001 U	0.62 J	0.29 J	0.29 J	1.1
COPPER	mg/L	0.3 U	0.3 UJ	0.02	2.2 U	25 U	5.2 J	21 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	
Field Sample Location:	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Matrix:	Water	Water	Water	Water	Water	Water	Water	
Sample Collection Date:	04/24/2001	06/18/2001	09/10/2001	05/14/2002	08/05/2002	04/29/2003	09/23/2003	
Field Sample Identification:	01CB07-67	01CB08-67	01CB28-10	02CB14-16	02CB18-02	03CB08-12	03CB14-48	
Laboratory Sample Identification:	210420910	210611202	913080-016	02052485-23	02081571-4	18483-005	19255-007	
	Units							
	mg/L	36	25 UJ	100 J	11.2 U	11.2 U	0.025 U	0.05 U
	mg/L	15 U	15 U	4 J	0.73 J	0.56 J	0.005 UJ	0.005 U
	mg/L	19700	25 U	3.8 J	9.3 J	13.7	0.01 UJ	0.01 U
	mg/L	0.24 J	1.1	0.8 J	1.4 U	1.4 UJ	0.001 U	0.001 U
	mg/L	25 U	25 U	4 J	1.2 J	0.3 UJ	0.002 J	0.001 UJ

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2004

Field Site Identifier:	01	01	01	01	01
Field Sample Location:	MW-01	MW-12	MW-19	MW-21	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water
Sample Collection Date:	05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:	04CB05-28	04CB05-29	04CB05-30	04CB05-31	04CB05-32
Laboratory Sample Identification:	0405056	0405056	0405056	0405056	0405056

Diss Metals	Units					
IRON	ug/l	29.9	33.6	31.4	28.6	39.0
MANGANESE	ug/l	15.0 U	1480	3360	0.718 J	1.23 J
ARSENIC	ug/l	0.190 J	0.600 J	0.169 J	0.122 J	0.289 J
COPPER	ug/l	0.785 J	3.95 J	5.77 J	1.28 J	1.24 J
ZINC	ug/l	2.74 J	8.80 J	6.93 J	4.48 J	4.36 J

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	04/24/2001	09/11/2001	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:	00CB09-01	01CB07-64	01CB28-21	02CB14-05	02CB18-09	03CB08-03	03CB14-05
Laboratory Sample Identification:	200403802	210420901	913080-024	02052485-24	02081571-27	18483-010	19267-005

General Chemistry	Units						
CHLORIDE	mg/L	8.72	24	10	9.3	7.4	4.3
SULFIDE	mg/L	1 U	1 U	0.4 J	2 U	2 U	1 J
ALKALINITY	mg/L	208	140	130	160	170	174
HARDNESS	mg/L	226	218	170 J	200	190	187
NITRATE	mg/L	1.66	6.5	2.6 J	2.7 J	0.15 U	2.6
SULFATE	mg/L	2.54	13	8.2 U	7.8	7.9	10
TOTAL ORGANIC CARBON	mg/L	3.36	3.89	3.9 R	6.1	2.6	3.2 J

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-02	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/05/2000	06/18/2001	09/12/2001	08/06/2002	09/24/2003	04/04/2000	04/25/2001
Field Sample Identification:	00CB09-02	01CB08-66	01CB28-39	02CB18-13	03CB14-09	00CB09-03	01CB07-83
Laboratory Sample Identification:	200403810	210611201	913080-011	02081571-9	19267-009	200402501	210422706

General Chemistry	Units							
CHLORIDE	mg/L	1.01	5.73	6.2	3	1 J	64	47
SULFIDE	mg/L	1 U	1 U	3.3 J	2 U	1 U	1 U	1 U
ALKALINITY	mg/L	50	36	49	66	80 J	468	442
HARDNESS	mg/L	89.4	66	140 J	98	106.2	548	544
NITRATE	mg/L	0.1 U	38	2.3	0.15 U	2.02	2.84	4.42
SULFATE	mg/L	58.3	105	10	10	3 J	12.5	11
TOTAL ORGANIC CARBON	mg/L	1.97	5.57	4.2 R	3.2	2.3	2.18	1 U

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-03	MW-03	MW-03	MW-04	MW-05	MW-05	MW-05
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/13/2001	08/07/2002	09/23/2003	04/04/2000	04/07/2000	04/26/2001	09/13/2001
Field Sample Identification:	01CB28-44	02CB18-15	03CB14-11	00CB09-04	00CB09-05	01CB08-05	01CB28-46
Laboratory Sample Identification:	913103-001	02081571-35	19255-008	200402511	200405120	210423416	913103-006
General Chemistry	Units						
CHLORIDE	mg/L	58	69	52.4	9.59	49.2	29
SULFIDE	mg/L	2.7	2 U	1 U	1 U	1.52	6.7
ALKALINITY	mg/L	440 J	420	357 J	120	308	270 J
HARDNESS	mg/L	480 J	540	160	119	330	240 J
NITRATE	mg/L	4	0.15 U	4.43	0.1 U	0.1 U	0.17 J
SULFATE	mg/L	14 J	16	2 U	10.8	34.3	22 J
TOTAL ORGANIC CARBON	mg/L	1.1 R	1.4	1.6	2.4	74.1	27 R

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed
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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-05	MW-05	MW-06S	MW-06S	MW-06S	MW-06S	MW-07
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/07/2002	09/25/2003	04/26/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000
Field Sample Identification:	02CB18-17	03CB14-13	01CB08-11	01CB28-34	02CB18-19	03CB14-15	00CB09-07
Laboratory Sample Identification:	02081836-7	19274-009	210423404	913080-001	02081836-10	19274-005	200402505

General Chemistry	Units						
CHLORIDE	mg/L	26	22.1	14	12	17	23.9
SULFIDE	mg/L	2 U	3.4	1 U	1.1	2 U	1 U
ALKALINITY	mg/L	220	228 J	148	160	270	282 J
HARDNESS	mg/L	4 U	78.48	285	290 J	4 U	104
NITRATE	mg/L	0.15 U	0.05 U	0.87	1.1	0.15 U	1.01
SULFATE	mg/L	21	20	12	16	18	17
TOTAL ORGANIC CARBON	mg/L	25	6.2	5.29	6.3	5.8	8.2

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-07	MW-07	MW-07	MW-07	MW-08	MW-08	MW-08
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/25/2001	09/11/2001	08/07/2002	09/24/2003	04/05/2000	04/25/2001	09/11/2001
Field Sample Identification:	01CB07-87	01CB28-22	02CB18-21	03CB14-17	00CB09-08	01CB07-93	01CB28-18
Laboratory Sample Identification:	210422708	913080-026	02081571-32	19267-007	200403807	210422715	913080-035

General Chemistry	Units							
CHLORIDE	mg/L	8.36	23	21	12.2	6.26	3.25	3.8
SULFIDE	mg/L	1 U	0.8 J	2 U	1 U	1 U	1 U	0.93 J
ALKALINITY	mg/L	352	340	390	346 J	122	154	150
HARDNESS	mg/L	388	410 J	450	133.3	147	181	170 J
NITRATE	mg/L	3.63	3 J	0.15 U	2.97	3.55	1.52	1.5 J
SULFATE	mg/L	6.54 J	10	10	2 U	6.5	7.47 J	7.6 U
TOTAL ORGANIC CONTENT	mg/L	2.8	2 R	1.5	1.2	2.22	1.46	1 R

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA

Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/08/2002	09/25/2003	04/05/2000	04/23/2001	09/12/2001	08/06/2002	09/25/2003
Field Sample Identification:	02CB18-23	03CB14-19	00CB09-09	01CB07-46	01CB28-36	02CB18-25	03CB14-21
Laboratory Sample Identification:	02081571-38	19274-003	200403803	210419501	913080-004	02081571-11	19274-011

General Chemistry		Units							
CHLORIDE	mg/L	4.2	11	3.15	3.22	6.5	11	4.4	
SULFIDE	mg/L	2 U	1 U	1 U	1 U	1.3	2 U	1 U	
ALKALINITY	mg/L	180	184 J	58	60	62	64	59 J	
HARDNESS	mg/L	310	69.44	55.4	59	64 J	95	32.83	
NITRATE	mg/L	0.15 U	2.6	1.97	2.46	3.3	0.15 U	2.36	
SULFATE	mg/L	6	2 U	8.46	27	6.8 U	22	24	
TOTAL ORGANIC CARBON	mg/L	1.1	2.3	5.46	9.94	5.1	8.4	6.5	

1. **Introduction**
 2. **Background**
 3. **Methodology**
 4. **Results**
 5. **Conclusion**
 6. **References**

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10S	MW-10S
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/06/2000	04/26/2001	09/12/2001	08/07/2002	10/01/2003	04/07/2000	12/05/2000
Field Sample Identification:	00CB09-10	01CB07-97	01CB28-32	02CB18-27	03CB14-23	00CB09-18	01CB01-44
Laboratory Sample Identification:	200405118	210423401	913080-007	02081836-1	19309-001	200405109	201202302

General Chemistry	Units						
CHLORIDE	mg/L	55.9	48	61	56	22	53
SULFIDE	mg/L	1 U	1.25	1.1 J	2 U	1 U	1 U
ALKALINITY	mg/L	440	472	540 J	400	287 J	218
HARDNESS	mg/L	447	505	630 J	480	93.58	359
NITRATE	mg/L	1.72	0.18	0.13 J	0.15 U	0.05 U	0.1 U
SULFATE	mg/L	13.8	22	23	20	3 J	138
TOTAL ORGANIC CARBON	mg/L	31.8	26	64 R	110	25.3	249

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-10S	MW-10S	MW-10S	MW-10S	MW-11	MW-11	MW-11
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/25/2001	09/12/2001	08/07/2002	09/25/2003	04/04/2000	04/24/2001	09/10/2001
Field Sample Identification:	01CB07-85	01CB28-33	02CB18-29	03CB14-25	00CB09-11	01CB07-76	01CB28-12
Laboratory Sample Identification:	210422711	913080-008	02081836-5	19274-007	200402509	210420916	913080-013

General Chemistry	Units						
CHLORIDE	mg/L	11	10	10	6.7	6.98	6.25
SULFIDE	mg/L	1.15	1.3 J	2 U	1 U	1 U	1.3 J
ALKALINITY	mg/L	142	270 J	170	135 J	220	225
HARDNESS	mg/L	425	260 J	4 U	52.05	238	231
NITROGEN	mg/L	1.49	4.7	0.11 J	3.41	3.09	3.74
SULFATE	mg/L	8.64 J	13	14	2 J	9.41	3.48 J
TOTAL ORGANIC CARBON	mg/L	503	19 R	10	6.6	10.1	4.67

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Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-11	MW-11	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/06/2002	09/23/2003	04/06/2000	04/26/2001	09/13/2001	05/14/2002	08/08/2002
Field Sample Identification:	02CB18-31	03CB14-27	00CB09-12	01CB08-03	01CB28-45	02CB14-07	02CB18-33
Laboratory Sample Identification:	02081571-14	19255-014	200405103	210423413	913103-005	02052485-9	02081836-12

General Chemistry		Units						
CHLORIDE	mg/L	7.8	6.7	54.5	48	47	40	37
SULFIDE	mg/L	2 U	1 U	1 U	NA	1.3	2 U	2 U
ALKALINITY	mg/L	210	187 J	500	564	490 J	490	460
HARDNESS	mg/L	230	72.14	559	556	470 J	510	4 U
NITRATE	mg/L	0.15 U	2.94	0.483	0.43	0.53 U	0.67 J	0.46
SULFATE	mg/L	7.6	2 U	11.9	16	16 J	17	15
TOTAL ORGANIC CARBON	mg/L	18	2.3	24.9	23	25 R	32	28

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-13
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/29/2003	09/23/2003	04/05/2000	12/05/2000	04/23/2001	06/19/2001	09/10/2001
Field Sample Identification:	03CB08-05	03CB14-29	00CB09-13	01CB01-52	01CB07-44	01CB08-69	01CB28-13
Laboratory Sample Identification:	18483-018	19255-021	200403805	201202701	210419508	210613201	913080-014

General Chemistry	Units							
CHLORIDE	mg/L	31	30.8	4.37	4.2	3.52	5.73	5.4
SULFIDE	mg/L	1 UJ	1 U	1 U	1 U	8.48	1 U	0.93 J
ALKALINITY	mg/L	470	443 J	82000	72	70	68	75
HARDNESS	mg/L	442	151.4	247	140	146	112	100 J
NITRATE	mg/L	0.8	1.17	0.1 U	0.45	1.77	2.87	2.5 J
SULFATE	mg/L	20	2 U	431	8.2 J	35	11	7.5 U
TOTAL ORGANIC CARBON	mg/L	19 J	15.5	8.68	7.9	18	13	9.5 R

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-15
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/05/2002	09/23/2003	04/06/2000	06/19/2001	04/04/2000	04/25/2001	09/12/2001
Field Sample Identification:	02CB18-03	03CB14-31	00CB09-14	01CB08-70	00CB09-15	01CB07-70	01CB28-35
Laboratory Sample Identification:	02081571-6	19255-001	200405101	210613202	200402503	210422701	913080-002

General Chemistry	Units							
CHLORIDE	mg/L	6.8	5.1	15.7	12	12.3	15	17
SULFIDE	mg/L	2 U	1 U	1 U	1 U	1 U	1 U	0.8 U
ALKALINITY	mg/L	86	78 J	112	104	340	240	240
HARDNESS	mg/L	110	35.04	140	124	263	276	270 J
NITRATE	mg/L	0.15 U	1.86	2.16	2.06	3.52	3.97	3.7
SULFATE	mg/L	8.4	7	4.12	3.48 J	10	2.61 J	4.5 U
TOTAL ORGANIC CARBON	mg/L	6.3	6	1.5 U	6.41	2.05	5.24	4.5

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16	MW-16
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	08/06/2002	09/23/2003	04/06/2000	04/23/2001	09/10/2001	08/06/2002	09/23/2003
Field Sample Identification:	02CB18-35	03CB14-33	00CB09-16	01CB07-58	01CB28-16	02CB18-37	03CB14-35
Laboratory Sample Identification:	02081571-24	19255-003	200405114	210419510	913080-019	02081571-19	19255-016
General Chemistry	Units						
CHLORIDE	mg/L	16	17.4	6.45	3.57	1.8	6.2
SULFIDE	mg/L	2 U	1 U	1 U	8.56	0.8 J	1 U
ALKALINITY	mg/L	230	213 J	48	90	79	82 J
HARDNESS	mg/L	250	88.57	97.2	164	120 J	37.96
NITRATE	mg/L	0.15 U	3.8	3.86	8.69	5.8 J	3.49
SULFATE	mg/L	4.7	2 U	24.1	29	11	3 J
TOTAL ORGANIC CARBON	mg/L	53	1.8	2.5	4.4	0.34 R	2.3

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-17	MW-17	MW-17	MW-17	MW-17	MW-18	MW-19
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/06/2000	04/26/2001	09/11/2001	08/08/2002	09/25/2003	06/19/2001	04/07/2000
Field Sample Identification:	00CB09-17	01CB08-01	01CB28-24	02CB18-39	03CB14-37	01CB08-71	00CB09-19
Laboratory Sample Identification:	200405107	210423411	913080-028	02081571-46	19274-015	210613203	200405111

General Chemistry	Units							
CHLORIDE	mg/L	4.89	4.12	4.8	4.6	4.4	19	37.4
SULFIDE	mg/L	1 U	1 U	1.1	2 U	1 U	1.7	1 U
ALKALINITY	mg/L	206	202	180 J	200	184 J	168	182
HARDNESS	mg/L	232	228	210 J	210	71.56	182	345
NITRATE	mg/L	4.21	4.98	4.4 J	0.15 U	5.1	0.13 U	6.97
SULFATE	mg/L	3 U	6.82 J	9.3 U	7.4	2 U	33 J	90
TOTAL ORGANIC CARBON	mg/L	1.5 U	1.57	1 R	0.73	2.1	6.63	54.2

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/26/2001	09/12/2001	05/13/2002	08/08/2002	04/29/2003	09/25/2003	04/26/2001
Field Sample Identification:	01CB08-15	01CB28-38	02CB14-09	02CB18-43	03CB08-07	03CB14-39	01CB08-08
Laboratory Sample Identification:	210423409	913080-010	02052485-6	02081836-14	18483-012	19274-017	210423407

General Chemistry	Units							
CHLORIDE	mg/L	39	19	33	22	19.6	17.5 J	24
SULFIDE	mg/L	1 U	1.7 J	2 U	2 U	0.6 J	1 U	1 U
ALKALINITY	mg/L	236	320 J	150	130	118	160 J	198
HARDNESS	mg/L	323	270 J	250	4 U	162	71.57	301
NITRATE	mg/L	3.37	1.3	2 J	0.16	3	2 J	0.13 U
SULFATE	mg/L	47	9.7 U	16	16	27	90 J	67
TOTAL ORGANIC CARBON	mg/L	33	34 R	45	65	53 J	129 J	478

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21	MW-21
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	09/12/2001	08/07/2002	09/25/2003	05/14/2002	08/06/2002	04/29/2003	09/24/2003
Field Sample Identification:	01CB28-37	02CB18-45	03CB14-41	02CB14-11	02CB18-47	03CB08-09	03CB14-43
Laboratory Sample Identification:	913080-005	02081836-3	19274-019	02052485-3	02081571-21	18483-001	19267-014

General Chemistry

	Units							
CHLORIDE	mg/L	16	22	19.4 J	69	49	41	48
SULFIDE	mg/L	3.3 J	2 U	1 U	2 U	2 U	1 UJ	1 U
ALKALINITY	mg/L	260 J	220	233 J	110	120	144	165 J
HARDNESS	mg/L	250 J	4 U	86.67	140	150	169	81.46
NITRATE	mg/L	0.15 J	0.15 U	1.25 U	2 J	0.15 U	2.5	2.62
SULFATE	mg/L	24	25	80 J	7.3	9.6	12	2 U
TOTAL ORGANIC CARBON	mg/L	65 R	71	150 J	3.1	8.3	1.5 J	3.6

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-22	MW-22	MW-22	MW-23	MW-24	MW-24	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	05/14/2002	08/06/2002	09/24/2003	09/11/2001	12/06/2000	04/24/2001	12/06/2000
Field Sample Identification:	02CB14-13	02CB18-49	03CB14-45	01CB28-20	01CB01-55	01CB07-68	01CB01-53
Laboratory Sample Identification:	02052485-26	02081571-16	19267-003	913080-023	201206501	210420905	201205801

General Chemistry	Units						
CHLORIDE	mg/L	18	7.2	4.9	10	21	36
SULFIDE	mg/L	0.7 J	2 U	1 U	1.3 J	1 U	1 U
ALKALINITY	mg/L	130	150	132 J	110	180	256
HARDNESS	mg/L	240	170	101.8	140 J	310	348
NITRATE	mg/L	3.7 J	0.15 U	2.15	0.13 R	2.3	3.64
SULFATE	mg/L	14	12	3 J	8.2 U	7.1 J	12
TOTAL ORGANIC CARBON	mg/L	2	1.3	1.7	5.6 R	5.5	3.36

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2000-2003

Field Site Identifier:	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA	PENTA
Field Sample Location:	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water	Water	Water
Sample Collection Date:	04/24/2001	06/18/2001	09/10/2001	05/14/2002	08/05/2002	04/29/2003	09/23/2003
Field Sample Identification:	01CB07-66	01CB08-67	01CB28-10	02CB14-15	02CB18-01	03CB08-11	03CB14-47
Laboratory Sample Identification:	210420907	210611202	913080-016	02052485-19	02081571-3	18483-004	19255-006

General Chemistry	Units						
CHLORIDE	mg/L	22	27	30	27	18	11
SULFIDE	mg/L	1 U	1 U	1.1 J	2 U	2 U	1 U
ALKALINTY	mg/L	240	230	260	260	270	250 J
HARDNESS	mg/L	294	326	300 J	300	310	90.28
NITRATE	mg/L	5	30	3.2 J	3 J	0.15 U	3.74
SULFATE	mg/L	10 J	13	12	15	14	2 U
TOTAL ORGANIC CARBON	mg/L	2.79	6.67	0.34 R	5	4.5	6.4

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; "R" - Rejected; "NA" - Not Analyzed

Penta Wood LTRA Groundwater Results 2004

Field Site Identifier:	01	01	01	01	01
Field Sample Location:	MW-01	MW-12	MW-19	MW-21	MW-26
Sample Interval:	N/A	N/A	N/A	N/A	N/A
Matrix:	Water	Water	Water	Water	Water
Sample Collection Date:	05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:	04CB05-04	04CB05-07	04CB05-08	04CB05-09	04CB05-10
Laboratory Sample Identification:	0405056	0405056	0405056	0405056	0405056

General Chem	Units					
ALKALINITY, TOTAL (AS CaCO3)	mg/L	147.	446.	144.	165.	242.
CHLORIDE (AS CL)	mg/l	4.3 J	29 J	25 J	67 J	17 J
NITROGEN, NITRATE (AS N)	mg/l	2.1 J	1.1 J	0.71 J	2.3 J	3.9 J
SULFATE (AS SO4)	mg/l	2.0 J	14 J	16 J	3.6 J	42 J
HARDNESS (AS CaCO3)	ug/L	158000	443000	176000	188000	284000
TOTAL CARBON	mg/l	6.37	20.2	43.7	3.12	3.75

Penta Wood LTRA Groundwater Results 2004

Field Site Identifier:		01	01	01	01	01
Field Sample Location:		MW-01	MW-12	MW-19	MW-21	MW-26
Sample Interval:		N/A	N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water	Water
Sample Collection Date:		05/04/2004	05/04/2004	05/04/2004	05/04/2004	05/04/2004
Field Sample Identification:		04CB05-04	04CB05-07	04CB05-08	04CB05-09	04CB05-10
Laboratory Sample Identification:		0405056	0405056	0405056	0405056	0405056
General Chem						
SULFIDE						
Units						
mg/l		2.20	1.40	1.00 U	2.40	3.20

QUALIFIER KEY: "U" - Analyte not found at the listed detection limit; "J" - Estimated Result; "UB" - Analyte detected in Blank; No Qualifier - Analyte found; "R" - Rejected; "NR" - Not Reported

Attachment 5

Site Inspection Checklist

Site Inspection Checklist

I. SITE INFORMATION	
Site name: <u>Penta Wood Products</u>	Date of inspection: <u>11/15/04</u>
Location and Region: <u>Wisconsin - IV</u>	EPA ID: <u>WID006176945</u>
Agency, office, or company leading the five-year review: <u>WDNR</u>	Weather/temperature: <u>Part Sunny / 40°F</u>
Remedy Includes: (Check all that apply) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input checked="" type="checkbox"/> Landfill cover/containment <input checked="" type="checkbox"/> Access controls <input checked="" type="checkbox"/> Institutional controls <input checked="" type="checkbox"/> Groundwater pump and treatment <input type="checkbox"/> Surface water collection and treatment <input checked="" type="checkbox"/> Other <u>erosion control</u> </div> <div style="width: 45%;"> <input checked="" type="checkbox"/> Monitored natural attenuation <input checked="" type="checkbox"/> Groundwater containment <input type="checkbox"/> Vertical barrier walls </div> </div>	
Attachments: <input checked="" type="checkbox"/> Inspection team roster attached <input checked="" type="checkbox"/> Site map attached	
II. INTERVIEWS (Check all that apply)	
1. O&M site manager <u>Bill Andrae</u> <u>CH₂M Hill</u> <u>Site Manager</u> <u>12-9-04</u> <div style="display: flex; justify-content: space-between; font-size: small;"> Name Title Date </div> Interviewed G at site <input type="checkbox"/> G at office <input checked="" type="checkbox"/> by phone <input type="checkbox"/> Phone no. <u>414-847-0341</u> Problems, suggestions; G Report attached <u>talked about the need for an annual site report</u>	
2. O&M staff <u>Mary Wicklund</u> <u>Plant Operator</u> <u>11-15-04</u> <div style="display: flex; justify-content: space-between; font-size: small;"> Name Title Date </div> Interviewed <input checked="" type="checkbox"/> at site <input type="checkbox"/> G at office <input type="checkbox"/> G by phone <input type="checkbox"/> Phone no. <u>715-349-8357</u> Problems, suggestions; G Report attached <u>NONE</u>	

- Agency Emergency Government San Burnett County
Contact Roberta Sichta Director 12-1-04
Name Title Date Phone no.
Problems; suggestions; G Report attached sent letter requesting comments
on concerns - none received.

Agency Town of Daniels, Burnt County
Contact Vernon Peterson Chairman 12-1-04
Name _____ Title _____ Date _____ Phone no. _____
Problems, suggestions, or Report attached sent letter requesting comments
or concerns - no response back.

Agency Siren Fire Department, City of Siren
Contact Tom Howe Chief 12-1-04
Name Title Date Phone no.
Problems; suggestions; G Report attached Sent letter requesting comments
or concerns - no response back.

Agency _____				
Contact _____				
Name _____		Title _____	Date _____	Phone no. _____
Problems; suggestions; G Report attached _____				

- copy of letters sent in Attachment 6 of the 5-year review report.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)				
1.	O&M Documents <input checked="" type="checkbox"/> O&M manual <input checked="" type="checkbox"/> As-built drawings <input checked="" type="checkbox"/> Maintenance logs Remarks <u>O&M manual is being revised</u>	<input checked="" type="checkbox"/> Readily available <input checked="" type="checkbox"/> Readily available <input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> Up to date <input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A <input type="checkbox"/> N/A <input type="checkbox"/> N/A
2.	Site-Specific Health and Safety Plan G Contingency plan/emergency response plan Remarks _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date <input type="checkbox"/> Up to date	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
3.	O&M and OSHA Training Records Remarks _____	<input type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
4.	Permits and Service Agreements G Air discharge permit <input checked="" type="checkbox"/> Effluent discharge G Waste disposal, POTW G Other permits _____ Remarks _____	<input type="checkbox"/> Readily available <input checked="" type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input type="checkbox"/> Up to date <input type="checkbox"/> Up to date <input type="checkbox"/> Up to date	<input type="checkbox"/> N/A <input type="checkbox"/> N/A <input type="checkbox"/> N/A <input type="checkbox"/> N/A
5.	Gas Generation Records Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
6.	Settlement Monument Records Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
7.	Groundwater Monitoring Records Remarks _____	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
8.	Leachate Extraction Records Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
9.	Discharge Compliance Records G Air G Water (effluent) Remarks _____	<input type="checkbox"/> Readily available <input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/A
10.	Daily Access/Security Logs Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A

IV. O&M COSTS																																							
1.	O&M Organization G State in-house G PRP in-house G Federal Facility in-house G Other _____	G Contractor for State G Contractor for PRP <input checked="" type="checkbox"/> Contractor for Federal Facility																																					
2.	O&M Cost Records G Readily available G Up to date G Funding mechanism/agreement in place Original O&M cost estimate _____ G Breakdown attached <div style="text-align: center;">Total annual cost by year for review period if available</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">From _____</td> <td style="width: 15%;">To _____</td> <td style="width: 15%;">Date _____</td> <td style="width: 15%;">Date _____</td> <td style="width: 15%;">Total cost _____</td> <td style="width: 20%;">G Breakdown attached</td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td>Date _____</td> <td>Date _____</td> <td>Total cost _____</td> <td>G Breakdown attached</td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td>Date _____</td> <td>Date _____</td> <td>Total cost _____</td> <td>G Breakdown attached</td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td>Date _____</td> <td>Date _____</td> <td>Total cost _____</td> <td>G Breakdown attached</td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td>Date _____</td> <td>Date _____</td> <td>Total cost _____</td> <td>G Breakdown attached</td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td>Date _____</td> <td>Date _____</td> <td>Total cost _____</td> <td>G Breakdown attached</td> </tr> </table>			From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached	From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached	From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached	From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached	From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached	From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached
From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached																																		
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From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached																																		
From _____	To _____	Date _____	Date _____	Total cost _____	G Breakdown attached																																		
3.	Unanticipated or Unusually High O&M Costs During Review Period Describe costs and reasons: <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> LTRA for site began in August 2004 no unanticipated or unusually high cost to date. Item only sent into operation, of 10 years LTRA. </div>																																						
V. ACCESS AND INSTITUTIONAL CONTROLS <input checked="" type="checkbox"/> Applicable G N/A																																							
A.	Fencing <i>Good around CAMU & along road.</i>																																						
1.	Fencing damaged Remarks _____	G Location shown on site map <input checked="" type="checkbox"/> Gates secured G N/A																																					
B. Other Access Restrictions																																							
1.	Signs and other security measures Remarks _____	G Location shown on site map <input checked="" type="checkbox"/> N/A																																					

C. Institutional Controls (ICs)								
1.	Implementation and enforcement Site conditions imply ICs <u>not properly implemented</u> Site conditions imply ICs not being fully enforced Type of monitoring (e.g., self-reporting, drive by) _____ Frequency _____ Responsible party/agency _____ Contact _____	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No	<input type="checkbox"/> N/A <input type="checkbox"/> N/A				
	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Name</th> <th style="width: 33%;">Title</th> <th style="width: 33%;">Date</th> <th style="width: 33%;">Phone no.</th> </tr> </table>	Name	Title	Date	Phone no.			
Name	Title	Date	Phone no.					
	Reporting is up-to-date	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A				
	Reports are verified by the lead agency	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A				
	Specific requirements in deed or decision documents have been met	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A				
	Violations have been reported	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A				
	Other problems or suggestions: <input type="checkbox"/> Report attached							
	<u>Deed restriction for not allowing GW wells installed on building property CAME not need until LTRA is completed.</u>							
2.	Adequacy Remarks: <u>at this time deed restriction for land use and installing wells is not necessary until after LTRA is completed.</u>	<input checked="" type="checkbox"/> ICs are adequate	<input type="checkbox"/> ICs are inadequate	<input type="checkbox"/> N/A				
D. General								
1.	Vandalism/trespassing Remarks: _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No vandalism evident					
2.	Land use changes on site <input type="checkbox"/> N/A Remarks: <u>None</u>							
3.	Land use changes off site <input type="checkbox"/> N/A Remarks: <u>None.</u>							
VI. GENERAL SITE CONDITIONS								
A. Roads	<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A						
1.	Roads damaged Remarks: _____	<input checked="" type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Roads adequate	<input type="checkbox"/> N/A				

B. Other Site Conditions			
Remarks <u>None</u>			
VII. LANDFILL COVERS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
A. Landfill Surface			
1.	Settlement (Low spots) Areal extent _____ Remarks _____	G Location shown on site map _____ Depth _____	<input checked="" type="checkbox"/> Settlement not evident
2.	Cracks Lengths _____ Widths _____ Remarks _____	G Location shown on site map _____ Depths _____	<input checked="" type="checkbox"/> Cracking not evident
3.	Erosion Areal extent _____ Remarks <u>erosion control is an on-going work requirement</u>	G Location shown on site map _____ Depth _____	G Erosion not evident
4.	Holes Areal extent _____ Remarks _____	G Location shown on site map _____ Depth _____	<input checked="" type="checkbox"/> Holes not evident
5.	Vegetative Cover G Trees/Shrubs (indicate size and locations on a diagram) Remarks <u>Vegetative cover like erosion control is an on-going effort - CAAU good, remainder of site fair.</u>	G Grass _____ G Cover properly established _____	G No signs of stress _____
6.	Alternative Cover (armored rock, concrete, etc.) Remarks <u>rip-rap ditches being installed more planned in spring of 2005</u>	G N/A	
7.	Bulges Areal extent _____ Remarks _____	G Location shown on site map _____ Height _____	<input checked="" type="checkbox"/> Bulges not evident

8.	Wet Areas/Water Damage G Wet areas G Ponding G Seeps G Soft subgrade Remarks _____	<input checked="" type="checkbox"/> Wet areas/water damage not evident G Location shown on site map Areal extent _____ G Location shown on site map Areal extent _____ G Location shown on site map Areal extent _____ G Location shown on site map Areal extent _____
9.	Slope Instability G Slides Areal extent _____ Remarks _____	G Location shown on site map <input checked="" type="checkbox"/> No evidence of slope instability
B. Benches G Applicable <input checked="" type="checkbox"/> N/A (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)		
1.	Flows Bypass Bench Remarks _____	G Location shown on site map <input checked="" type="checkbox"/> N/A or okay
2.	Bench Breached Remarks _____	G Location shown on site map <input checked="" type="checkbox"/> N/A or okay
3.	Bench Overtopped Remarks _____	G Location shown on site map <input checked="" type="checkbox"/> N/A or okay
C. Letdown Channels <input checked="" type="checkbox"/> Applicable G N/A (Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)		
1.	Settlement G Location shown on site map G No evidence of settlement Areal extent _____ Depth _____ Remarks <i>some settlement of gabion down chutes - not too bad</i>	
2.	Material Degradation G Location shown on site map <input checked="" type="checkbox"/> No evidence of degradation Material type _____ Areal extent _____ Remarks _____	
3.	Erosion G Location shown on site map G No evidence of erosion Areal extent _____ Depth _____ Remarks <i>sediment in down chutes and other erosion, control structures requires regular maintenance.</i>	

4.	Undercutting Areal extent _____ Remarks _____	G Location shown on site map _____ Depth _____	X No evidence of undercutting
5.	Obstructions Type _____ G Location shown on site map _____ Size _____ Remarks _____		X No obstructions Areal extent _____
6.	Excessive Vegetative Growth Type _____ X No evidence of excessive growth G Vegetation in channels does not obstruct flow G Location shown on site map _____ Remarks _____		Areal extent _____
D. Cover Penetrations X Applicable G N/A			
1.	Gas Vents X Properly secured/locked X Functioning G Evidence of leakage at penetration X N/A Remarks _____	G Active X Passive G Routinely sampled G Needs Maintenance	G Good condition
2.	Gas Monitoring Probes X Properly secured/locked G Functioning G Evidence of leakage at penetration Remarks _____	X Routinely sampled G Needs Maintenance	X Good condition G N/A
3.	Monitoring Wells (within surface area of landfill) X Properly secured/locked G Functioning G Evidence of leakage at penetration Remarks _____	X Routinely sampled G Needs Maintenance	X Good condition G N/A
4.	Leachate Extraction Wells G Properly secured/locked G Functioning G Evidence of leakage at penetration Remarks _____	G Routinely sampled G Needs Maintenance	G Good condition X N/A
5.	Settlement Monuments Remarks _____	G Located G Routinely surveyed	X N/A

E. Gas Collection and Treatment		G Applicable X N/A
1.	Gas Treatment Facilities G Flaring G Thermal destruction G Collection for reuse G Good condition G Needs Maintenance Remarks _____	
2.	Gas Collection Wells, Manifolds and Piping G Good condition G Needs Maintenance Remarks _____ <i>N/A</i>	
3.	Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings) G Good condition G Needs Maintenance X N/A Remarks _____	
F. Cover Drainage Layer		G Applicable X N/A
1.	Outlet Pipes Inspected Remarks _____	G Functioning X N/A
2.	Outlet Rock Inspected Remarks _____	G Functioning X N/A
G. Detention/Sedimentation Ponds		G Applicable G N/A
1.	Siltation Areal extent _____ Depth _____ G Siltation not evident Remarks _____ <i>Some minor</i>	G N/A
2.	Erosion Areal extent _____ Depth _____ G Erosion not evident Remarks _____ <i>Some minor</i>	
3.	Outlet Works Remarks _____	X Functioning G N/A
4.	Dam Remarks _____	X Functioning G N/A

H. Retaining Walls		G Applicable	X N/A
1.	Deformations	G Location shown on site map	G Deformation not evident
	Horizontal displacement _____	Vertical displacement _____	
	Rotational displacement _____		
	Remarks _____		
2.	Degradation	G Location shown on site map	G Degradation not evident
	Remarks _____		
I. Perimeter Ditches/Off-Site Discharge		X Applicable	G N/A
1.	Siltation	G Location shown on site map	G Siltation not evident
	Areal extent _____	Depth _____	
	Remarks _____	Some siltation. Some erosion need to be maintained until vegetation improves	
2.	Vegetative Growth	G Location shown on site map	G N/A
	G Vegetation does not impede flow		
	Areal extent _____	Type _____	
	Remarks _____	Vegetative growth due to poor / sandy soils	
3.	Erosion	G Location shown on site map	G Erosion not evident
	Areal extent _____	Depth _____	
	Remarks _____	erosion if left unchecked would start to be a problem. continued maintenance necessary.	
4.	Discharge Structure	X Functioning	G N/A
	Remarks _____	Some siltation need to be regularly maintained by cleaning out silt.	
VIII. VERTICAL BARRIER WALLS		X Applicable	G N/A
1.	Settlement	G Location shown on site map	G Settlement not evident
	Areal extent _____	Depth _____	
	Remarks _____		
2.	Performance Monitoring	Type of monitoring _____	
	G Performance not monitored		
	Frequency _____	G Evidence of breaching	
	Head differential _____		
	Remarks _____		

C. Treatment System		<input checked="" type="checkbox"/> Applicable	G N/A
1.	Treatment Train (Check components that apply) G Metals removal <input checked="" type="checkbox"/> Oil/water separation <input checked="" type="checkbox"/> G Bioremediation G Air stripping <input checked="" type="checkbox"/> Carbon adsorbers <input checked="" type="checkbox"/> G Filters _____ <input checked="" type="checkbox"/> Additive (e.g., chelation agent, flocculent) _____ G Others _____ <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> G Needs Maintenance <input checked="" type="checkbox"/> Sampling ports properly marked and functional <input checked="" type="checkbox"/> Sampling/maintenance log displayed and up to date <input checked="" type="checkbox"/> Equipment properly identified G Quantity of groundwater treated annually <u>May - Sept = 13.1 Million</u> G Quantity of surface water treated annually <u>0</u> Remarks <u>Completed system up and running only since May.</u>		
2.	Electrical Enclosures and Panels (properly rated and functional) G N/A <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> G Needs Maintenance Remarks _____		
3.	Tanks, Vaults, Storage Vessels G N/A <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> G Proper secondary containment <input type="checkbox"/> G Needs Maintenance Remarks _____		
4.	Discharge Structure and Appurtenances G N/A <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> G Needs Maintenance Remarks _____		
5.	Treatment Building(s) G N/A <input checked="" type="checkbox"/> Good condition (esp. roof and doorways) <input type="checkbox"/> G Needs repair <input checked="" type="checkbox"/> Chemicals and equipment properly stored Remarks _____		
6.	Monitoring Wells (pump and treatment remedy) <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input checked="" type="checkbox"/> All required wells located <input type="checkbox"/> G Needs Maintenance <input type="checkbox"/> G N/A Remarks _____		
D. Monitoring Data			
1.	Monitoring Data <input checked="" type="checkbox"/> Is routinely submitted on time <input checked="" type="checkbox"/> Is of acceptable quality		
2.	Monitoring data suggests: <input checked="" type="checkbox"/> Groundwater plume is effectively contained <input type="checkbox"/> G Contaminant concentrations are declining		

D. Monitored Natural Attenuation			
1.	Monitoring Wells (natural attenuation remedy) <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> All required wells located Remarks _____	<input checked="" type="checkbox"/> Functioning G Needs Maintenance	<input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition G N/A
X. OTHER REMEDIES			
If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.			
XI. OVERALL OBSERVATIONS			
A. Implementation of the Remedy			
Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>The components of the remedy have been completed and that included. All immediate threats have been addressed. Building demo, consolidation of PCP and arsenic waste in a CMTU, corrosion control measures, LNAPL recovery / GW treatment / bioventing treatment systems installed. LTRA is just beginning and will continue for 10 years or more. The remedy is expected to be protective when ground water clean-up goals are met in the future.</i></p> </div>			
B. Adequacy of O&M			
Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>LNAPL is being collected and 6,650 gallons to date have been collected and sent disposed off-site as a Haz. Waste. Bioventing will commence once free product has been collected to the extent practicable. Site erosion and maintenance will need to be continued until vegetation stabilizes sandy soils on site.</i></p> </div>			

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.

None to date

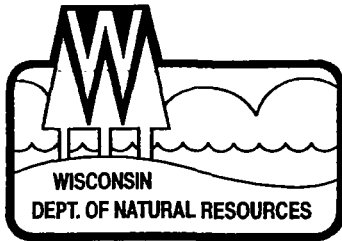
D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

None to date. LTRA has only been going for the last few months.

Attachment 6

Public Outreach Letters and Documents



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
John Gozdziwski, Regional Director

Northern Region Headquarters
107 Sutliff Ave.
Rhinelander, Wisconsin 54501-3349
Telephone 715-365-8900
FAX 715-365-8932
TTY Access via relay - 711

December 1, 2004

Roberta Sichta
Emergency Government Director
Burnett County Government Center
7410 County Rd. K
Siren, WI 54872

Vernon Peterson
Town of Daniels Chairman
23787 Peterson Rd.
Siren, WI 54872

Tom Howe
Chief, Siren Fire Department
7732 State Rd 35
Siren, WI 54872

Subject: Federal Superfund Five-Year Review for Penta Wood Products Site

Dear Sirs :

This letter is to notify you of the of the up-coming five-year review that will be taking place for the Penta Wood Superfund site located on Daniels 70 (former State Route 70) approximately 2 miles west of the Village of Siren, and to solicit any comments you may have on the ongoing clean-up activities. All active Superfund sites are required to have such a review undertaken to assure that the cleanup continues to protect people and the environment. For the Penta Wood Site the Wisconsin Department of Natural Resources has been assigned to conduct the review and write the report. I have enclosed an information fact sheet concerning the Superfund five-year review process and a notice to be published in local newspapers to solicit the public's input.

Since December 1999, the USEPA and the WDNR have been working to remediate the Penta Wood Site. The work to date has included the following:

- Demolition of 17 buildings and foundations, and the offsite disposal of demolition material, debris piles, and laboratory chemicals.
- Excavation and consolidation of contaminated soils into a 7-acre Corrective Action Management Unit.
- Placing a soil cover over the CAMU with 6 inches of sand followed by 6 inches of topsoil, and then seeding and mulching the cover. Installing a gated 6-foot high fence encircling the perimeter of the CAMU restricted access.
- Erosion control structures including gabion basket downchutes, velocity control check dams and rip-rapped drainage ditches were constructed to protect the integrity of the CAMU.
- Seeding and mulching all barren areas and establishing a vegetative cover over all exposed areas of the site, including mulching and planting prairie grasses, native trees and shrubs.
- Drilling operations included abandonment of existing wells and the installation of the multi-purpose biovent and groundwater extraction wells, soil gas wells, a monitoring well, and the groundwater and LNAPL recovery pumps.

- Constructing a treatment building housing the biovent blower system, LNAPL recovery tanks and a groundwater treatment system. The treatment system consisting of a Dissolved Air Floatation (DAF) unit, sludge dewatering system and sludge handling equipment, an oil bag filter, activated clay treatment, granular activated carbon treatment, controls, and discharge piping.
- Constructing an infiltration basin for discharging treated groundwater.


Presently, the remedial effort has eliminated any direct contact threat for arsenic and pentachlorophenol at the site. Except for regular maintenance, the groundwater treatment system has been running continuously since May of 2004. As of September 24, 2004 the system has removed 6,650 gallons of free product floating on the groundwater table and treated 13.1 million gallons of groundwater. All hazardous wastes are being manifested and disposed of properly off-site. Semiannual groundwater sampling has shown that the groundwater contaminant plume is stable. The groundwater treatment system is expected to continue running for the next 10 years.

This notice and any concerns you may have with the Penta Wood Products remedial action will become part of the five-year review report. If you have questions or comments concerning the on-going clean-up please contact me at:

William Schultz
Wisconsin Department of Natural Resources
107 Sutliff Ave.
Rhineland, WI 54501
(715) 365-8965
bill.schultz@dnr.state.wi.us

Thank you for taking the time to review this letter.

Sincerely,



William Schultz, PE
Bureau of Remediation and Redevelopment

Enclosures



Superfund Today

FOCUS ON FIVE-YEAR REVIEWS INVOLVING THE COMMUNITY

Checking Up On Superfund Sites: The Five-Year Review

The U.S. Environmental Protection Agency (EPA) conducts regular checkups, called five-year reviews, on certain Superfund sites. EPA looks at sites where cleanup left wastes that limit site use. For example, EPA will look at a landfill to make sure the protective cover is not damaged and is working properly. EPA will also review sites with cleanup activity still in progress after five years.

In both cases, EPA checks the site to make sure the cleanup continues to protect people and the environment. The EPA review team conducts the review and writes a report on its findings. At some sites, other federal agencies, a state agency, or an Indian tribe may do the review, but EPA stays in the process and approves the report.

The Five-Year Review is:

- a regular EPA checkup on a Superfund site that has been cleaned up—with waste left behind—to make sure the site is still safe;
- a way to make sure the cleanup continues to protect people and the environment; and
- a chance for you to tell EPA about site conditions and any concerns you have.

During the review, EPA studies information on the site, including the cleanup and the laws that apply, and inspects the site to make sure it continues to be safe. EPA needs information from people who are familiar with the site. As someone living close to the site, you may know about things that can help the review team decide if it is still safe.

Here are some examples of things to tell EPA about:

- Broken fences, unusual odors, dead plants, materials leaving the site, or other problems
- Buildings or land around the site being used in new ways
- Any unusual activities at the site, such as dumping, vandalism, or trespassing
- Ways the cleanup at the site has helped the neighborhood.

For More Information ...

... about a Superfund site in your neighborhood, please call the toll-free Superfund/RCRA Hotline at 1-800-424-9346 or the Community Involvement Coordinator in the EPA regional office for your state. Your local EPA office can tell you where you can go to review files on every Superfund site in your area. Often, EPA holds community meetings to let people who live near a site know about site activities. You also may find useful information on the Superfund home page (www.epa.gov/superfund). For more information on the review process, see "Comprehensive Five Year Review Guidance," EPA 540-R-01-007, OSWER 9355.7-03B-P, June 2001.



EPA To Review Penta Wood Products Superfund Site Town of Daniels, Wisconsin

U.S. Environmental Protection Agency is conducting a status review of the Penta Wood Products Superfund site. The Superfund law requires regular reviews of sites (at least every five years) where the cleanup is complete but hazardous waste remains managed on-site. These reviews are done to ensure that the cleanup continues to protect human health and the environment.

This review will include an evaluation of background information, cleanup requirements, extent of sampling and effectiveness of the cleanup. It will also look at any anticipated future actions.

EPA completed several cleanup actions for the site. They included:

- installing ground-water extraction wells
- installing a water treatment system
- excavating and transferring pentachlorophenol-and arsenic-contaminated soil to an on-site disposal area
- demolishing all buildings and equipment
- stabilizing arsenic-contaminated soil and placing it under a 7-acre cover
- erecting a fence around the cover area

The five-year review report, which will be available by fall 2005, will detail the site's progress. The next review is scheduled for 2009.

Further information can be obtained by contacting:

Susan Pastor
EPA Community Involvement Coordinator
(800) 621-8431 Ext. 31325, weekdays 9 a.m. - 4:30 p.m.
pastor.susan@epa.gov

Site-related documents are available for review at:

Burnett Community Library
7451 W. Main St.
Webster

Grantsburg Public Library
415 S. Robert St.
Grantsburg

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